

PRELIMINARY AND FINAL SUBDIVISION PLAN

PREPARED FOR

LOT 14.02 IN BLOCK 286

SITUATED IN

FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

GENERAL NOTES

- SUBJECT PROPERTY IS KNOWN AS BLOCK 286 LOT 14.02 AS SHOWN ON SHEET 63.03 OF THE OFFICIAL TAX MAP OF FRANKLIN TOWNSHIP.
- BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM PLAN TITLED "PROPERTY SURVEY FOR BLOCK 286, LOT 14.02, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, PAMELA MATHEWS, N.J.P.E. & L.S. LIC. NO. 41181 AND DATED NOVEMBER 7, 2017.
- THIS MAP IS REFERENCED TO THE NEW JERSEY STATE PLANE COORDINATE SYSTEM NAD'83 AND NAVD'88.
- SURROUNDING EXISTING FEATURES & TOPOGRAPHY TAKEN FROM "OVERALL AS BUILT GRADING PLAN FOR VIKING AVENUE MAJOR SUBDIVISION, FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY" BY VAN CLEEF ENGINEERING ASSOCIATES, LAST REVISED JULY 23, 2007 CONVERTED TO NAVD'88.
- ALL PROPOSED UTILITIES ARE TO BE LOCATED UNDERGROUND AND SHALL BE APPROVED BY THE APPLICABLE AGENCIES AND UTILITY COMPANY.
- EXISTING UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PRIOR TO BEGINNING OF ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ON CALL SERVICE AT 811 OR 1-800-272-1000 AND OTHER LOCAL UTILITY COMPANIES AS REQUIRED FOR MARKOUT PRIOR TO ANY EXCAVATION. WHERE EXISTING UNDERGROUND UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING LOCATIONS, ELEVATIONS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS.
- PROPOSED UTILITY LOCATIONS SHOWN HEREON ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
- THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIAL, TREES, TREE STUMPS, BRUSH OR OTHER SURPLUS MATERIAL. ALL SUCH MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
- MAXIMUM PROPOSED GRADING SLOPE ON SITE IS 3:1 UNLESS OTHERWISE NOTED.
- ALL WHEELCHAIR ACCESSIBLE RAMPS AND PARKING SPACES SHALL MEET THE REQUIREMENTS OF CURRENT ADA STANDARDS FOR ACCESSIBLE DESIGN.
- TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), LATEST EDITION. SIGNS SHALL CONFORM TO STANDARD MUTCD SIZES UNLESS OTHERWISE APPROVED BY THE GOVERNING AUTHORITY.
- ALL CONSTRUCTION IS TO BE PERFORMED IN STRICT COMPLIANCE WITH ALL APPLICABLE MUNICIPAL, COUNTY AND STATE AGENCY REQUIREMENTS.
- CONSTRUCTION MATERIALS AND METHODS NOT OTHERWISE SPECIFIED OR SHOWN HEREIN SHALL CONFORM TO NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION AND AMENDMENTS).
- SITE AND UTILITY WORK ARE TO BE PERFORMED IN A MANNER TO MINIMIZE DAMAGE TO EXISTING VEGETATION AND TREES. ALL AREAS NOT AFFECTED BY CONSTRUCTION ARE TO REMAIN NATURAL, AND PROTECTED BY APPROPRIATE FENCING.
- TREE CLEARING SHALL BE MINIMIZED TO THE MAXIMUM EXTENT PRACTICABLE AND SHALL INCLUDE THE REMOVAL FROM THE SITE OF ALL STUMPS, ROOTS AND VEGETATIVE DEBRIS REMNANTS.
- COMPACTION OF FILL AREAS, BACKFILL FOR PROPOSED UTILITIES AND UNDER CONCRETE STRUCTURES, SHALL MEET ALL CODE REQUIREMENTS AND BE EQUAL TO A MINIMUM 95% MODIFIED PROCTOR DENSITY.
- ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED AND/OR BARRICADED WHEN WORK IS NOT IN PROGRESS.
- ALL EXISTING CONTOUR LINES, PROFILES AND SPOT ELEVATIONS ARE APPROXIMATE. ALL PROPOSED CONTOURS SHALL BE GRADED TO BLEND EVENLY WITH EXISTING CONTOURS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION COSTS WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST.
- APPLICANT SHALL COORDINATE A PRE-CONSTRUCTION MEETING WITH THE MUNICIPAL ENGINEER'S OFFICE AND PROVIDE MINIMUM 48 HOURS NOTICE PRIOR TO COMMENCING CONSTRUCTION.
- THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO NJAC 5:28-2.21 OF THE NJ UNIFORM CONSTRUCTION CODE AND CFR 1926.32(F) (OSHA COMPETENT PERSON).
- THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS HAVE BEEN SATISFIED AND PLANS MARKED AS "ISSUED FOR CONSTRUCTION".
- ANY DISCREPANCIES ENCOUNTERED BETWEEN FIELD CONDITIONS AND DESIGN PLANS SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO INSTALLATION OF IMPROVEMENTS.
- AN AS-BUILT PLAN PREPARED BY A LICENSED LAND SURVEYOR IS TO BE SUBMITTED TO THE TOWNSHIP PRIOR TO ANY CERTIFICATE OF OCCUPANCY INSPECTION OR THE RELEASE OF PERFORMANCE BONDS.
- NO SOIL CAN BE IMPORTED TO OR REMOVED FROM THE SITE UNTIL A SOIL IMPORTATION OR EXPORTATION PERMIT HAS BEEN OBTAINED FROM THE TOWNSHIP AS REQUIRED BY THE ORDINANCE. SOIL REMOVAL SHALL BE IN ACCORDANCE WITH §206 OF THE ORDINANCE.
- THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THE SET.

UTILITY OWNERS

RIGHT-OF-WAY DEPARTMENT BUCKETE PIPE LINE COMPANY P.O. BOX 368 EMMAUS, PA 18049-0368	N.J. DEPT. OF TRANSPORTATION 1305 PARKWAY AVENUE TRENTON, NJ 08625
BUSINESS MANAGER COMCAST CABLE 274 APWELL ROAD HILLSBOROUGH, NJ 08844	VERIZON 540 BROAD STREET NEWARK, NJ 07101
RIGHT-OF-WAY-DEPARTMENT SUNOCO PIPELINE L.P. MONTELO COMPLEX 525 FRITZTOWN ROAD SINKING SPRING, PA 19608	A T & T 340 MT. KIMBLE AVENUE MORRISTOWN, N.J. 07960
THE COUNTY OF SOMERSET P.O. BOX 3000 SOMERVILLE, NJ 08876	PUBLIC SERVICE ELECTRIC & GAS CO. 80 PARK PLAZA NEWARK, N.J. 07101
MIDDLESEX COUNTY 40 LIVINGSTON AVENUE NEW BRUNSWICK, NJ 08901	NEW JERSEY AMERICAN WATER (FRM. ELIZABETHTOWN WATER CO.) 1841 NORTH AVENUE PLAINFIELD, N.J. 07061-0001

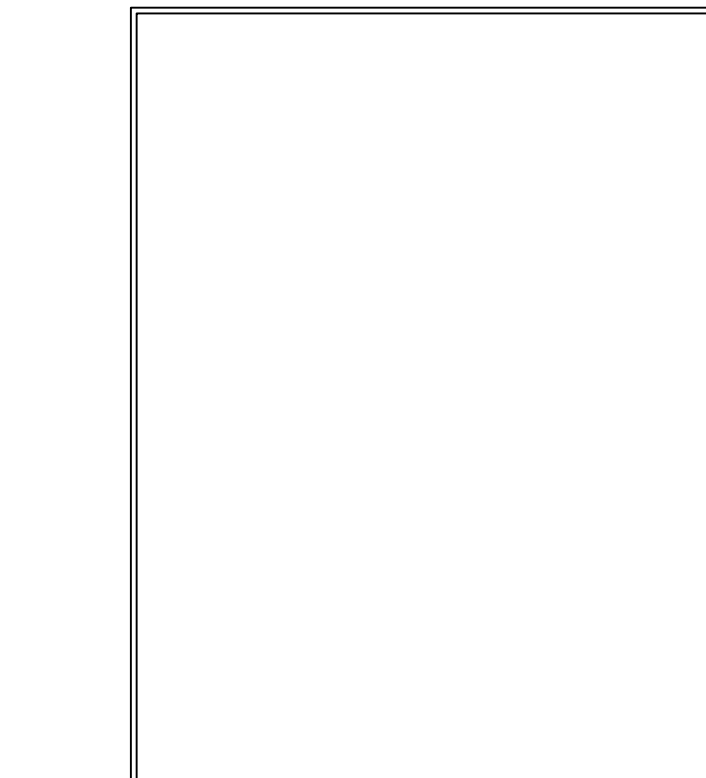
APPLICANT

MOHAMED GOUDA
FOREFRONT CONTRACTING
252 MELVIN AVENUE
STATEN ISLAND, NY 10314
646-420-9481

OWNER / APPLICANT

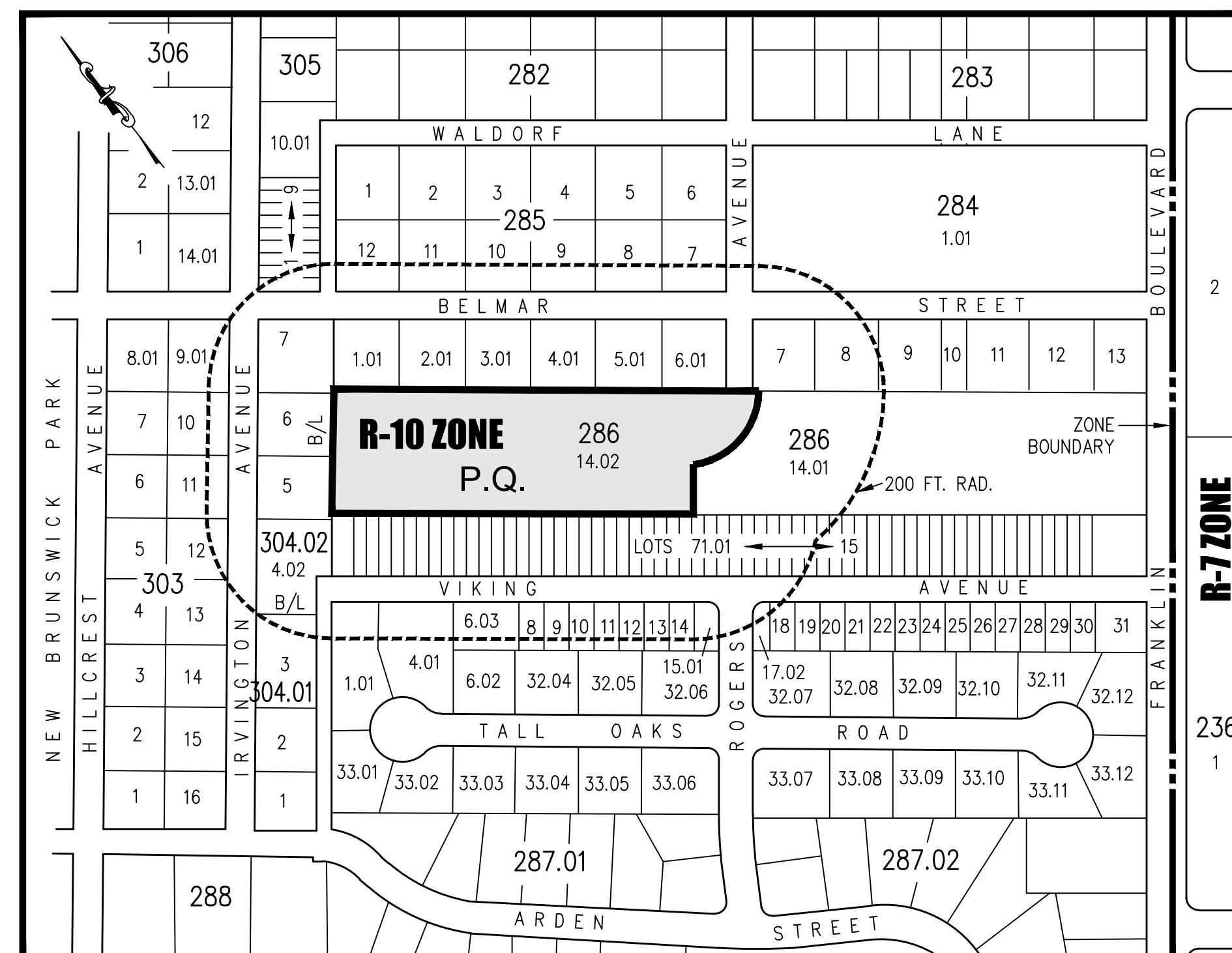
MOHAMED GOUDA
FOREFRONT CONTRACTING
252 MELVIN AVENUE
STATEN ISLAND, NY 10314
646-420-9481

SOMERSET COUNTY
ACCEPTANCE STAMP



THESE PLANS ARE NOT ACCEPTED FOR CONSTRUCTION UNLESS THIS BLOCK IS STAMPED "ACCEPTED AS SUBMITTED" BY A STAFF MEMBER OF THE SOMERSET COUNTY ENGINEERING DIVISION. BIDS FOR CONSTRUCTION SHOULD NOT BE BASED ON THESE PLANS UNTIL THE PLANS ARE ACCEPTED BY THE COUNTY.

ACCEPTANCE OF THESE PLANS EXPIRES TWO (2) YEARS FROM THE STAMPED DATE.



FRANKLIN TOWNSHIP TAX MAP No. 60.03

KEY MAP

SCALE: 1"=200' ±

PROPERTY OWNERS WITHIN 200 FT.

BLOCK	LOT	OWNER	BLOCK	LOT	OWNER
284	1.01	ETERNAL LIFE CHRISTIAN CENTER	287.01	1.01	MENDEZ, BLOSSOM L
285	6,7	WALKER, J/B	287.01	4.01	SAVAGE, UMARR & RADJATU
285	8,9 & 11	FRANKLIN TOWNSHIP	287.01	6.02	ALDRICH, DIANE HELEN
285	10,12	WANG, JAMES	287.01	6.03	ALDRICH, DIANE & BOOKER, DEBRA
			287.01	8,9	YOUNG, ALVIN & HORTENSE
286	1.01	PASHAM, ROBERT F.	287.01	10,11 & 12	BARRETT, NORMA F PASCAL
286	2.01	GLOVER, M/GLOVER, M. ETAL TRSTS	287.01	13,14 415.01	AKOOL-ACHAMPONG, PHIPPS E. & ROSEI
286	3.01	GIBBONS, JAMES JR & REGINA	287.02	17.02	JABBIE, ISATU & KAHARA, MOHAMED
286	4.01	DENG, LIGUN & XIAOYAN CHEN	287.02	18	RODRIGUEZ, KIZZY MARIE
286	5.01	KARIM, MOHAMMAD HAMID			
286	6.01	LEWIS, GERARD R. & CANDY D.	303	9.01	SATHARASINGHE, SANDANI A. & SADEEP, D.
286	7,8	HAWKINS, ROBERT B.	303	10	MCGEE, ROBERT & RETHA
286	9,10	HATKINS, JACOB J.	303	11	BROWN, DESMOND S. & JEAN E.
286	14.01	MOUNT CARHEL CHURCH INC.	303	12	BAILEY, ROBERT & PATRICIA STONE
286	17-25	WELLS, WAYNE			
286	26-30	DUMBUYA, AFARAN T.	304.01	3	GOTTLIEB, SIDNEY
286	31.01	BROADNEX, DWAYNE & CECILY I.	304.01	4.02	SOMOGYI, EUGENE
286	36.01	ARMSTRONG, EDWARD O. & NICOLETTE R.	304.01	5	MARSHALL, WILLIAM S. & BETTY J.
286	41.01	PATEL, PARTHIV D.	304.01	6	LE MAY, MANASES L. & LINDA
286	46.01	NATSOF CORPORATION	304.01	7	EKHIERE, AUGUSTINE T. & MERCY A.
286	51.01	ODURO, KWAME & OLIVIA SOMUAH			
286	56.01	BRIDGES, CHRISTOPHER L & BROWN, IVY	305	1-5	JENKINS, GLENN C.
286	61.01	ANIFOMOSHE, MUHAMMAD M & EBIRIM, K.			
286	66.01	COOPER, SHERRY A.			
286	71.01	NEXTON, JAMES A. & VEATREE M.			

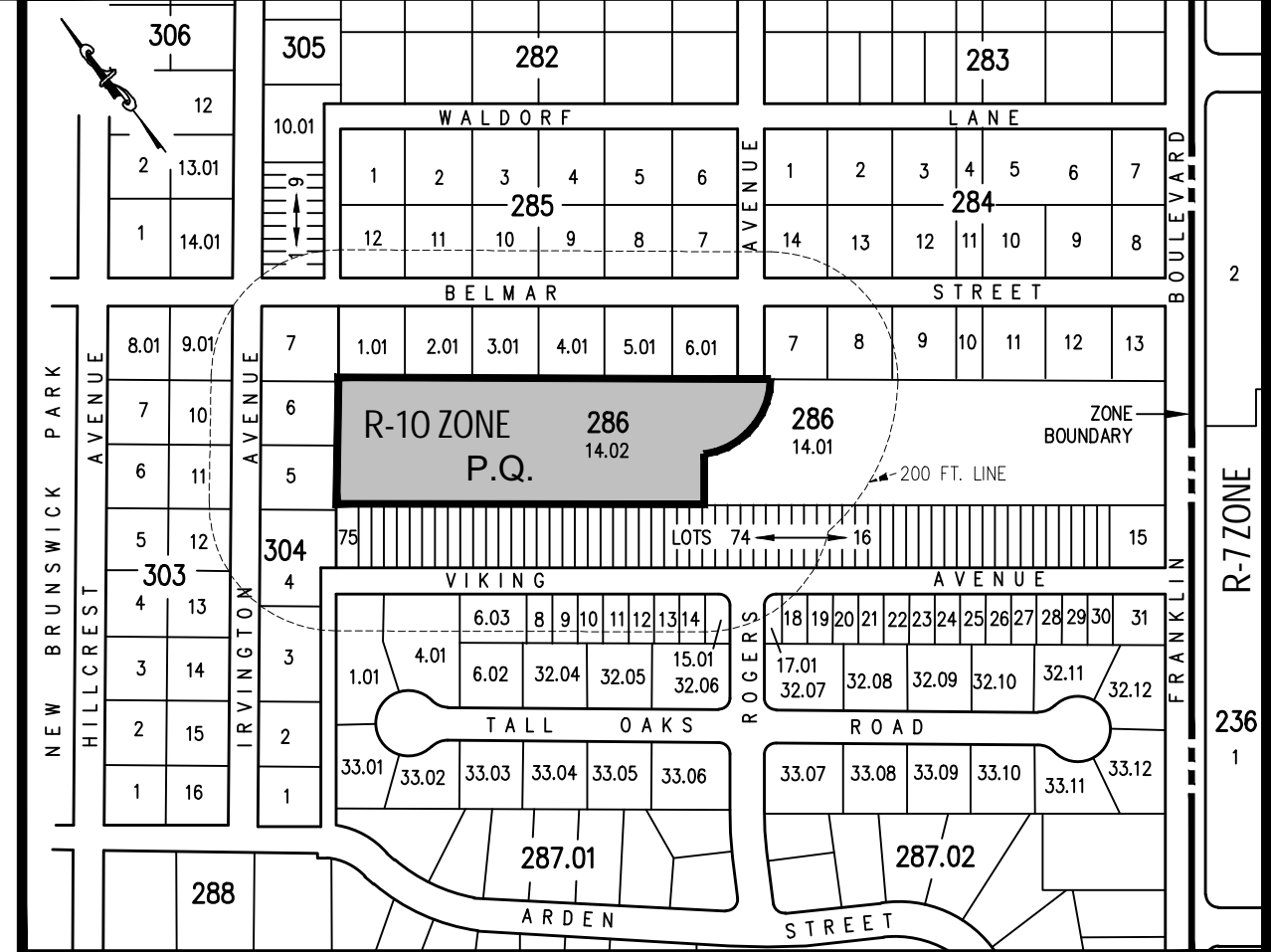
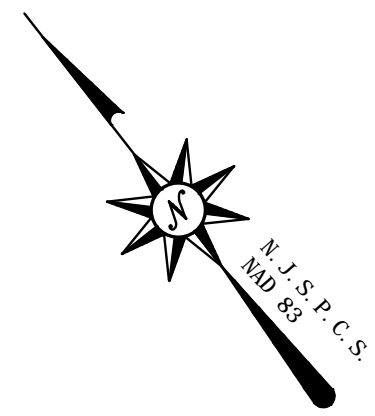
PRELIMINARY AND FINAL SUBDIVISION PLAN
LOT 14.02 IN BLOCK 286
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW JERSEY

INDEX OF SHEETS

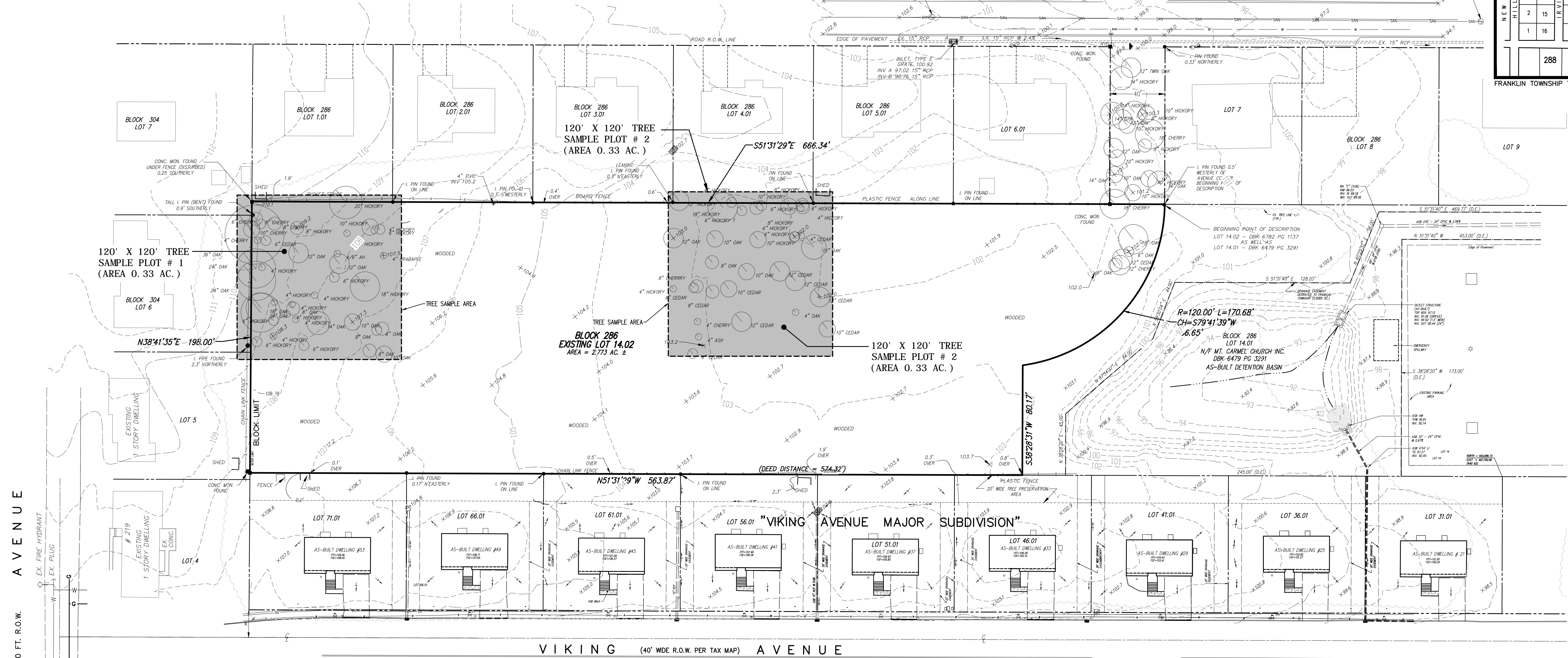
- COVER SHEET
- EXISTING CONDITIONS PLAN
- PRELIMINARY PLAT
- GRADING, DRAINAGE AND UTILITY PLAN
- SOIL EROSION & SEDIMENT CONTROL PLAN
- LANDSCAPING AND TREE MITIGATION PLAN
- PROPOSED ROAD PLAN & PROFILE
- INFILTRATION BASIN PLAN & DETAILS
- STORM SEWER MISCELLANEOUS PROFILES
- CONSTRUCTION DETAILS
- CONSTRUCTION DETAILS
- CONSTRUCTION DETAILS
- STANDARD SANITARY SEWER DETAILS
- STANDARD SANITARY SEWER DETAILS
- STANDARD SANITARY SEWER DETAILS
- SOIL EROSION AND SEDIMENT CONTROL DETAILS
- TRUCK TURNING TEMPLATE EXHIBIT
- PROPOSED ROAD CROSS SECTION

BY: *Michael K. Ford*
Michael K. Ford

New Jersey Professional Engineer
No. 34722



FRANKLIN TOWNSHIP TAX MAP No. 60.03
KEY MAP
SCALE: 1"=300' ±



IRVINGTON AVENUE 40 FT. R.O.W.

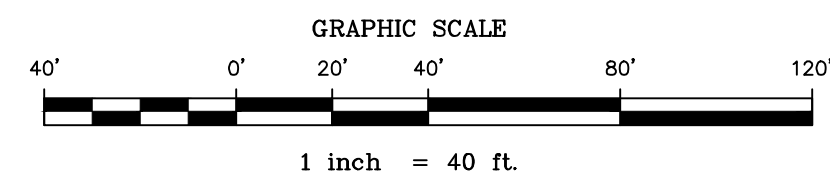
ROGERS AVENUE

PLAN REFERENCES:

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LEGEND

	WATER VALVE		FENCE
	WATER VALVE		STORM LINE
	WATER METER		SANITARY SEWER LINE
	FIRE HYDRANT		UNDERGROUND ELECTRIC LINE
	GAS VALVE		UNDERGROUND TELEPHONE LINE
	GAS METER		GAS LINE MARKOUT
	CLEANOUT		WATER LINE MARKOUT
	SANITARY MANHOLE		DOWNSPOUT
	STORM MANHOLE		PARKING METER
	STORM INLET		ELECTRIC MARKOUT
	LIGHT POLE		GAS MARKOUT
	TRAFFIC LIGHT		WATER MARKOUT
	UTILITY POLE		TREE
	GUY WIRE		
	ELECTRIC BOX		
	ELECTRIC MANHOLE		
	TELEPHONE MANHOLE		
	MAIL BOX		
	SIGN		



DATE:	DECEMBER 15, 2017
SCALE:	1" = 40'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
REVISIONS	AUTH. DATE JOB No. 15-09-FS

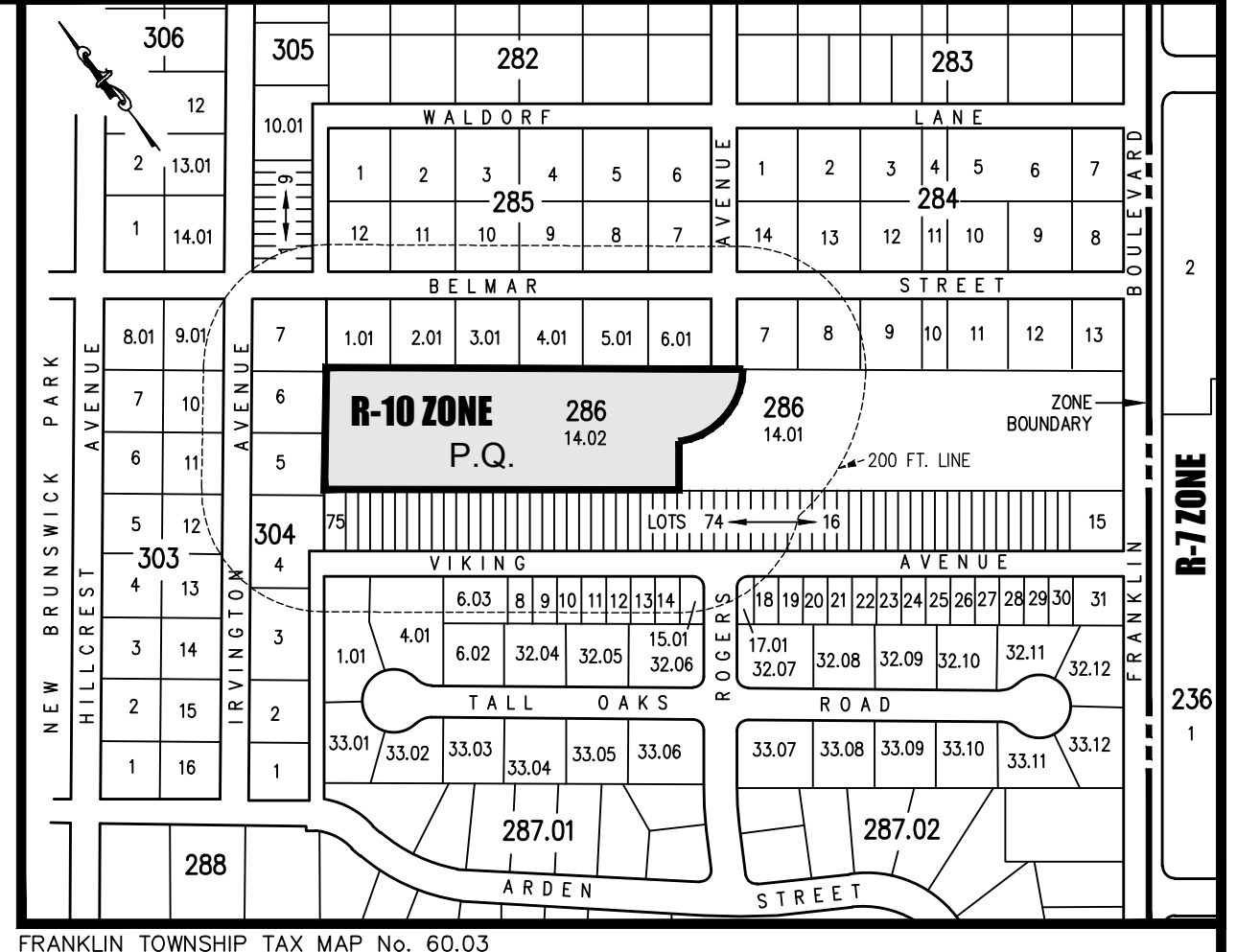
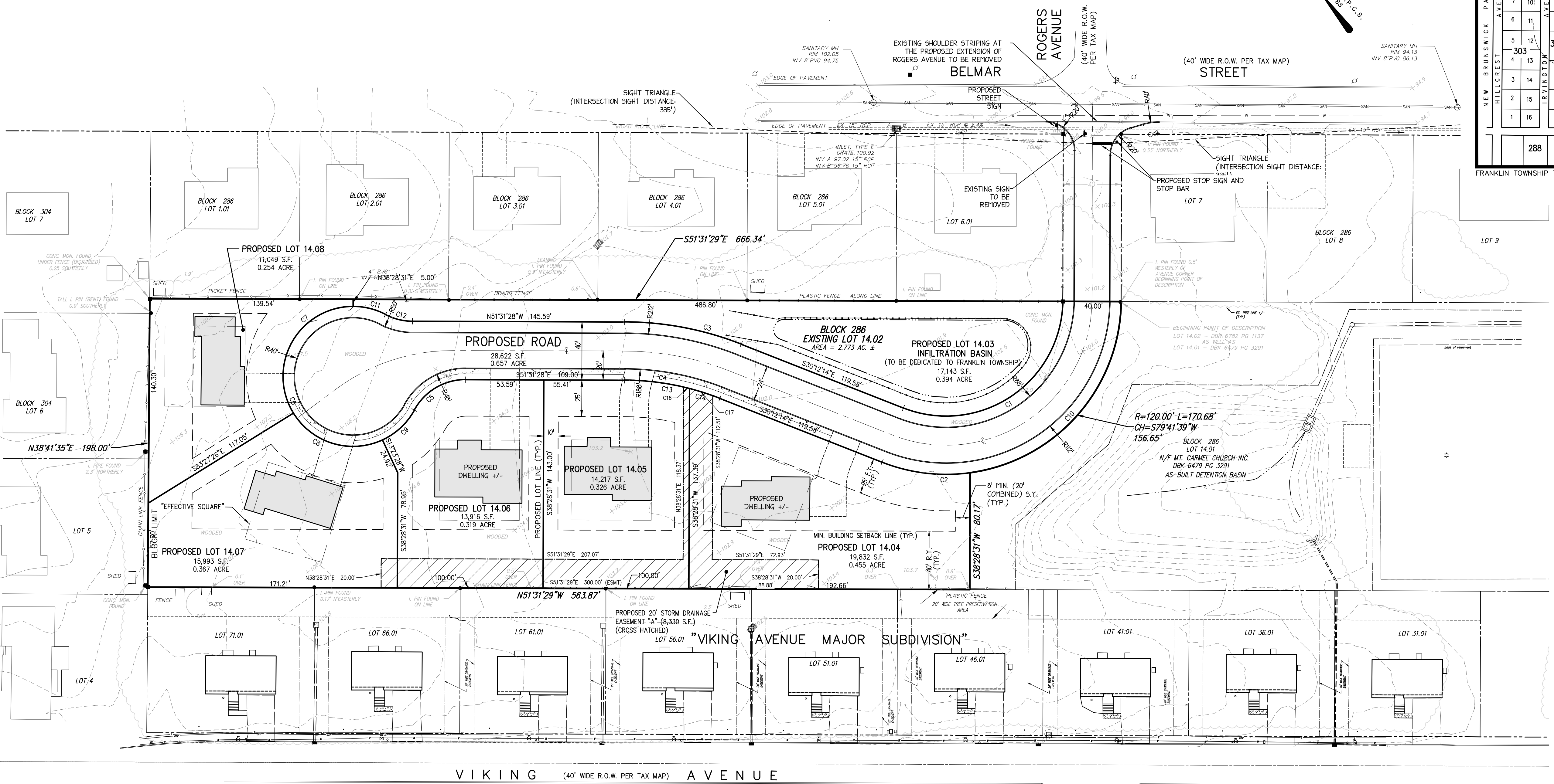
BY: *Michael K. Ford*
Michael K. Ford
New Jersey Professional Engineer
No. 34722

Van Cleef
ENGINEERING ASSOCIATES

32 BROWER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
EMAIL: VCE@VCEA.ORG WEB: WWW.VCEA.ORG
PHONE: (908) 359-8591 FAX: (908) 359-1560

EXISTING CONDITIONS PLAN
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

IRVINGTON AVENUE
40 FT. R.O.W.
EX. EDGE OF PAVEMENT
EX. 6" WATER MAIN
EX. 4" GAS MAIN
EX. E.P.



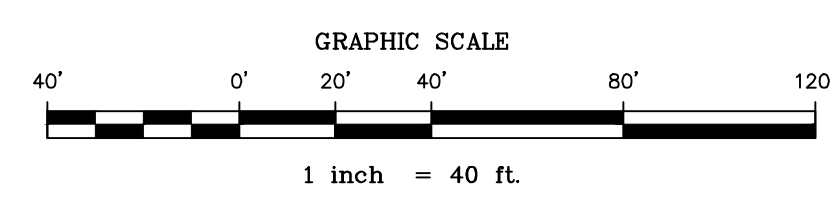
Curve Table

Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	154.44'	80.00'	110.61'	N85° 30' 35"W	131.55'
C2	61.48'	120.00'	29.36'	S44° 52' 54"E	60.81'
C3	81.87'	220.00'	21.32'	S40° 51' 51"E	81.39'
C4	66.98'	180.00'	21.32'	S40° 51' 51"E	66.59'
C5	42.93'	40.00'	61.49'	N82° 16' 15"W	40.90'
C6	202.31'	48.00'	241.49'	S7° 45' 51"W	82.51'
C7	102.15'	48.00'	121.93'	S67° 30' 33"W	83.94'
C8	69.66'	48.00'	83.15'	S35° 01' 59"E	63.71'
C9	30.50'	48.00'	36.41'	N85° 11' 13"E	29.99'
C10	232.16'	120.00'	110.85'	S65° 37' 40"E	197.61'
C11	23.11'	48.00'	27.58'	N37° 44' 04"W	22.88'
C12	19.25'	40.00'	27.58'	N37° 44' 04"W	19.07'
C13	45.06'	180.00'	14.34'	S44° 21' 14"E	44.94'
C14	21.93'	180.00'	6.98'	S33° 41' 37"E	21.91'
C16	4.17'	180.00'	1.33'	N37° 50' 47"W	4.17'
C17	16.68'	180.00'	5.31'	N34° 31' 40"W	16.68'

R-10 ZONE SCHEDULE (RESIDENTIAL)

GENERAL REQUIREMENTS	EXISTING CONDITIONS		PROPOSED CONDITIONS					
	LOT 14.02	LOT 14.03	LOT 14.03 (BASIN LOT)	LOT 14.04	LOT 14.05	LOT 14.06	LOT 14.07	LOT 14.08
PRINCIPAL BUILDING	10,000 S.F. (INTERIOR)	2,773 ACRES	15,204 S.F.	19,842 S.F.	14,072 S.F.	14,683 S.F.	15,993 S.F.	11,049 S.F.
MINIMUM LOT AREA (LOTS WHERE SANITARY SEWER IS PROVIDED)	13,125 S.F. (CORNER LOT)		0.349 AC.	0.456 AC.	0.344 AC.	0.337 AC.	0.367 AC.	0.254 AC.
MINIMUM LOT FRONTAGE (2)	100 FT. (INTERIOR) (2) 105 FT. (CORNER LOT)	40 FT. (1)	544.10 FT.	203.45 FT.	101.89 FT.	133.40 FT.	69.66 FT. (2) 105.91 FT. (8 SETBACK)	102.15 FT. (8 SETBACK)
MINIMUM FRONT YARD SETBACK	25 FT.	> 25 FT.	> 25 FT.	> 25 FT.	> 25 FT.	> 25 FT.	> 25 FT.	> 25 FT.
MINIMUM SIDE YARD SETBACK	8 FT.	> 8 FT.	> 8 FT.	> 8 FT.	> 8 FT.	> 8 FT.	> 8 FT.	> 8 FT.
MINIMUM TOTAL OF TWO SIDE YARD SETBACKS	20 FT.	> 20 FT.	> 20 FT.	> 20 FT.	> 20 FT.	> 20 FT.	> 20 FT.	> 20 FT.
MINIMUM REAR YARD SETBACK	40 FT.	> 40 FT.	> 40 FT.	> 40 FT.	> 40 FT.	> 40 FT.	> 40 FT.	> 40 FT.
MAXIMUM BUILDING HEIGHT	35 FT./2½ STY	< 35 FT./2½ STY	< 35 FT./1 STY.	< 35 FT./1 STY.	< 35 FT./1 STY.	< 35 FT./1 STY.	< 35 FT./1 STY.	< 35 FT./1 STY.
MAXIMUM LOT COVERAGE BY BUILDINGS	20%	< 20%	< 20%	< 20%	< 20%	< 20%	< 20%	< 20%
MAXIMUM IMPERVIOUS COVERAGE (LOT)	30%	< 30%	< 30%	< 30%	< 30%	< 30%	< 30%	< 30%
ACCESSORY BUILDING								
MINIMUM SIDE YARD SETBACK	8 FT.	--	NA	NA	NA	NA	NA	NA
MINIMUM REAR YARD SETBACK	20 FT.	--	NA	NA	NA	NA	NA	NA
GARDEN SHED (100 S.F. OR LESS)								
MINIMUM SIDE YARD SETBACK	5 FT.	NA	NA	NA	NA	NA	NA	NA
MINIMUM REAR YARD SETBACK	5 FT.	NA	NA	NA	NA	NA	NA	NA

(1) EXISTING VARIANCE CONDITION
(2) CHAPTER 112-4 DEFINITIONS: LOT FRONTAGE - "IN THE CASE OF LOTS FRONTING ON A CUL-DE-SAC STREET, THE FRONTAGE FOR LOTS FRONTING ON THE TURNAROUND PORTION OF THE STREET SHALL BE MEASURED ALONG THE FRONT SETBACK LINE BUT IN NO CASE SHALL THE LENGTH OF THE LOT LINE COEXISTENT WITH THE STREET LINE BE LESS THAN 2/3 OF THE REQUIRED FRONT LOT WIDTH."



PLAN REFERENCES:

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DATE:	DECEMBER 15, 2017		
SCALE:	1" = 40'		
DESIGNED BY:	M.K.F./M.R.		
DRAWN BY:	A.B.		
CHECKED BY:	M.K.F.		
REVISIONS AUTH.	DATE	JOB No.	15-09-FS

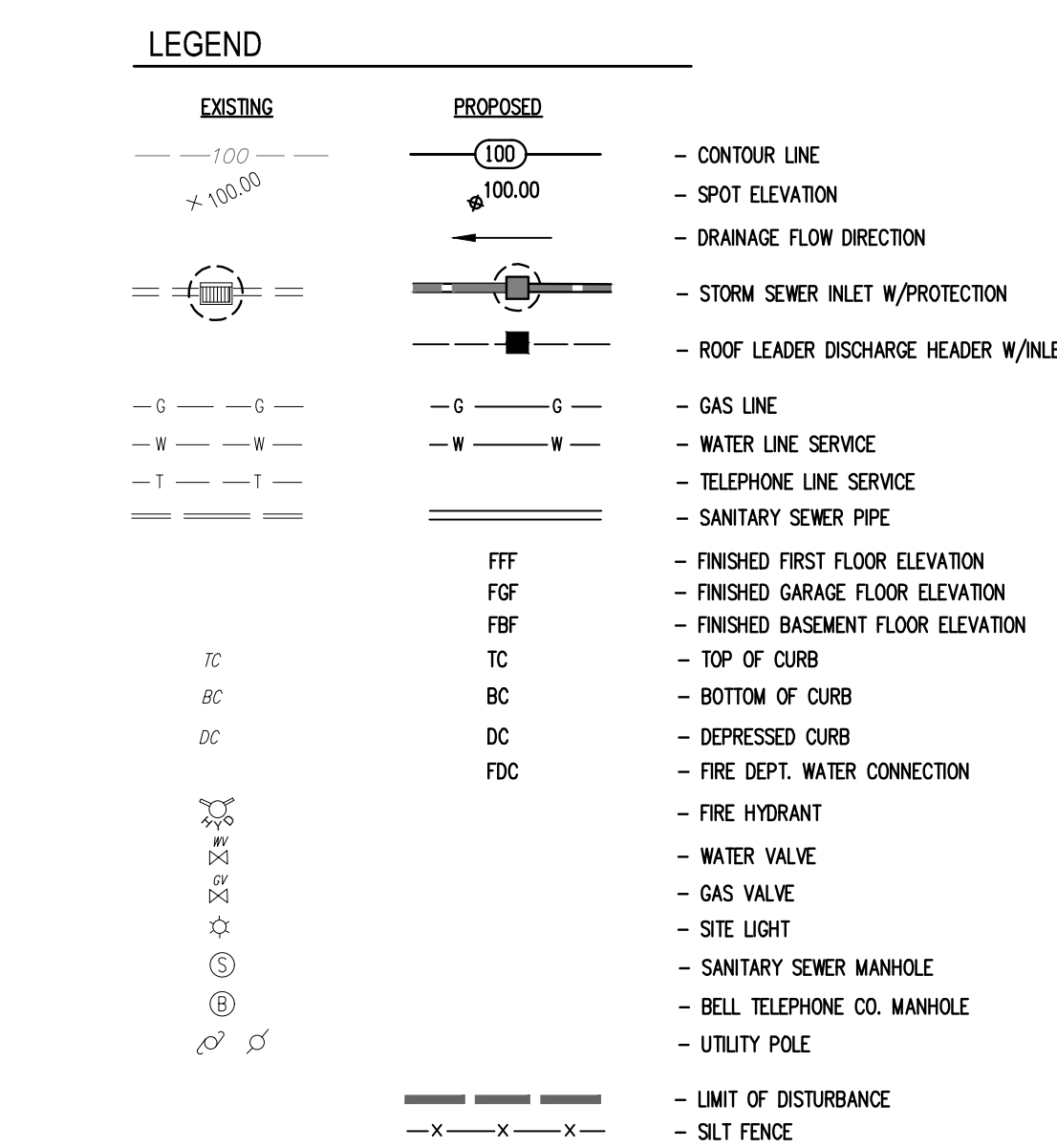
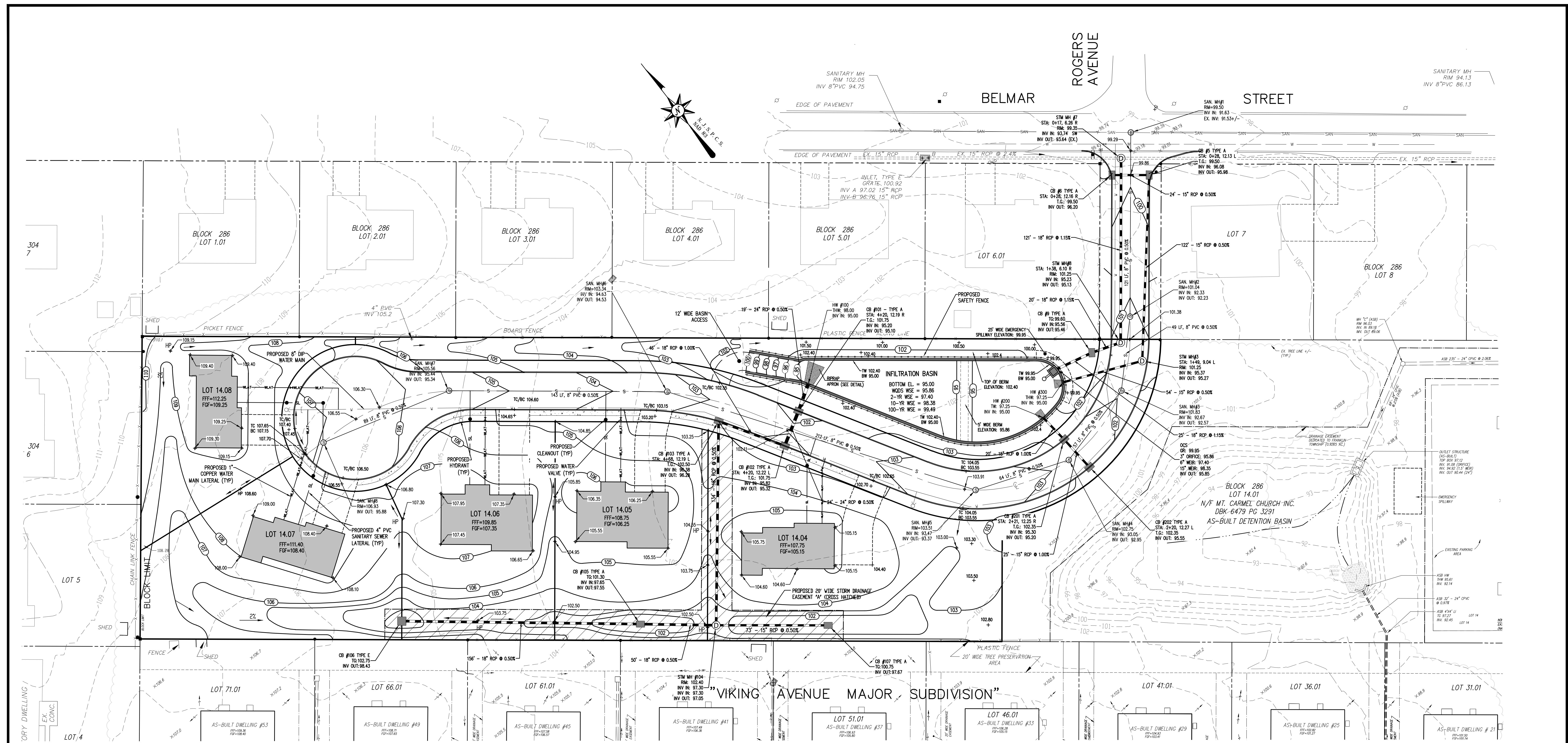
BY: *Pamela Mathews*
Pamela Mathews
New Jersey Professional Engineer
And Land Surveyor No. 41181

BY: *Michael K. Ford*
Michael K. Ford
New Jersey Professional Engineer
No. 34722

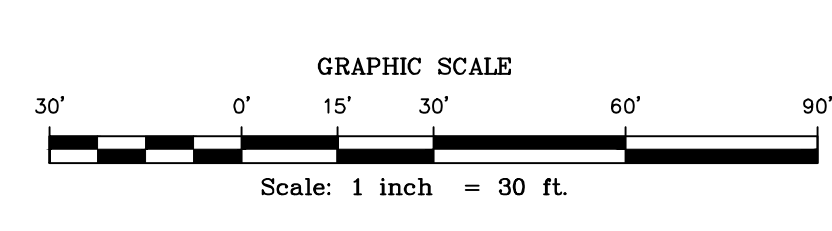
Van Cleef ENGINEERING ASSOCIATES
Consulting Civil Engineering
Environmental Engineering
Municipal Engineering
Land Surveying
Professional Planning
Landscape Architecture

32 BROOKER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
EMAIL: VCEA@VCEA.ORG WEB: WWW.VCEA.ORG
PHONE: (908) 359-8291 FAX: (908) 359-1560

PRELIMINARY SUBDIVISION PLAT
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



- GENERAL NOTES**
- CONTRACTOR SHALL SUBMIT WRITTEN NOTIFICATION TO THE SOMERSET UNION SOIL CONSERVATION DISTRICT 48 HOURS PRIOR TO THE START OF CONSTRUCTION. PHONE # 908-526-2701
 - ADEQUATE PRECAUTIONS SHALL BE TAKEN TO PREVENT AND/OR MINIMIZE THE DISCHARGE OF SEDIMENTS INTO ALL STREAMS WITHIN OR ADJACENT TO THE PROJECT AREA.
 - ALL FILL AND OTHER EARTH WORK ON THE PROJECT LANDS SHALL BE STABILIZED IN ACCORDANCE WITH "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL, NEW JERSEY", OBTAINABLE FROM LOCAL SOIL CONSERVATION DISTRICT OFFICE OR EQUAL ENGINEERING SPECIFICATIONS TO PREVENT ERODED SOIL FROM ENTERING ADJACENT WATERWAYS AT ANY TIME DURING AND SUBSEQUENT TO CONSTRUCTION. (SEE "SOIL EROSION SEDIMENT CONTROL DETAIL SHEET").
 - ALL PROPOSED UTILITIES SHALL BE PLACED UNDERGROUND.
 - ALL EXISTING AND PROPOSED UTILITIES VERTICAL AND HORIZONTAL LOCATIONS SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE BEGINNING OF THE CONSTRUCTION. CONTRACTOR MUST VERIFY ALL PROPOSED UTILITY LOCATION, SIZES AND MATERIALS WITH PROJECT ARCHITECT PRIOR TO INSTALLATION.
 - SEE BUILDING ARCHITECTURAL PLANS REGARDING PROPOSED UTILITY SERVICE CONNECTION LOCATIONS DETAILS AND CONSTRUCTION DETAILS.
 - PROPOSED LAWN AREAS SHALL BE GRAZED WITH LIGHTWEIGHT CONSTRUCTION EQUIPMENT.
 - FINAL LOCATION OF PROPOSED WATER TIE-IN TO BE DETERMINED PRIOR TO CONSTRUCTION. MAY REQUIRE CONNECTION TO WATER MAIN IN OTHER LOCATION THAN SHOWN.
 - ALL CONSTRUCTION SHALL COMPLY WITH THE CURRENT RULES AND REGULATIONS OR ORDINANCES OF FRANKLIN TOWNSHIP, N.J.D.P., ANMA AND ALL APPLICABLE REGULATORY AGENCIES HAVING JURISDICTION.
 - THE MINIMUM CLEARANCES BETWEEN WATER MAINS AND SANITARY SEWERS SHALL BE IN ACCORDANCE WITH THE STATE STANDARDS, I.E. MINIMUM HORIZONTAL CLEARANCE BETWEEN WATER MAIN AND SANITARY SEWER IN PARALLEL SHALL BE TEN FEET (10'). MINIMUM VERTICAL CLEARANCE BETWEEN PIPE CROSSING SHALL BE EIGHTEEN INCHES (18") WITH THE SANITARY SEWER BELOW THE WATER LINE. IF SUCH MINIMUM VERTICAL CLEARANCE CANNOT BE PROVIDED, THE SANITARY SEWER SHALL BE ENCASED IN CONCRETE 10 FEET (10') FROM EACH SIDE OF THE CROSSING OR A TOTAL OF 20 FEET (20').
 - WATER MAINS CROSSING STORM SEWERS OR DRAINS WHERE THE CLEARANCE BETWEEN THE PIPES IS LESS THAN EIGHTEEN (18") INCHES, PIER SUPPORTS FOR THE STORM LINE SHALL BE PROVIDED IN ORDER TO PREVENT THE LOAD TRANSFER TO THE AFFECTED UTILITY.
 - BASEMENTS TO BE PROVIDED ONLY IF APPROPRIATE SOIL TESTS CONFIRM ADEQUATE SEPARATION FROM SEASONAL HIGH WATER TABLE.



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SCALE:	1" = 30'
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JOB No.:	15-09-FS

BY: **Michael K. Ford**
 Michael K. Ford
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 No. 34722

Van Cleef
 ENGINEERING ASSOCIATES

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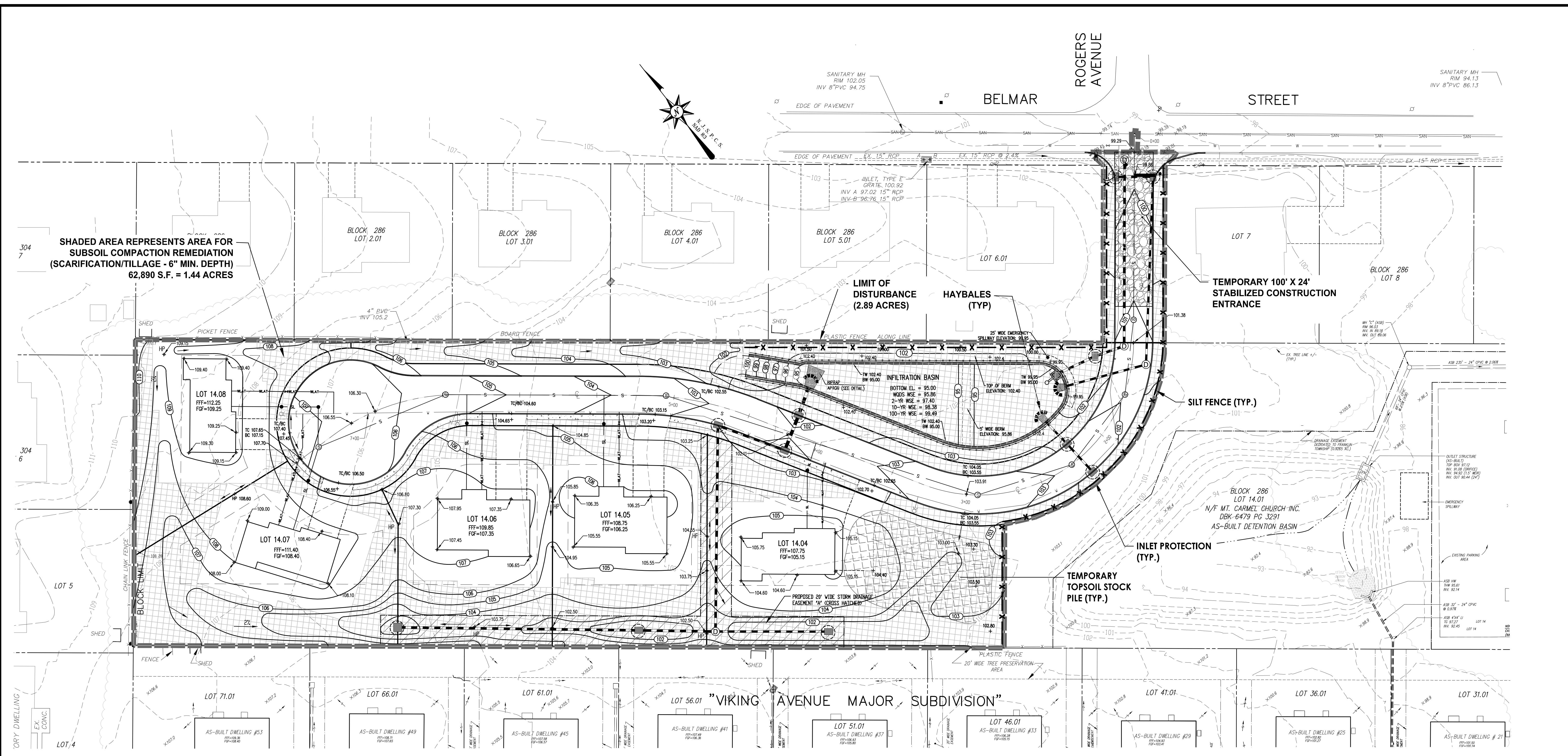
32 BROWER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
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OFFICES THROUGHOUT
 NJ, EASTERN PA AND DE

NJ LIC. CERT. NO. 24GA28123300

GRADING, DRAINAGE, AND UTILITY PLAN

FOR
LOT 14.02 IN BLOCK 286
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY



SHADED AREA REPRESENTS AREA FOR SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE - 6" MIN. DEPTH) 62,890 S.F. = 1.44 ACRES

LIMIT OF DISTURBANCE (2.89 ACRES)

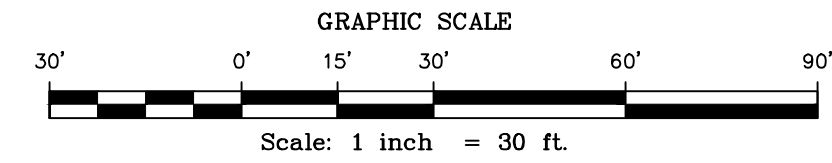
TEMPORARY 100' X 24' STABILIZED CONSTRUCTION ENTRANCE

TOTAL LIMIT OF DISTURBANCE = 2.89 ACRES

THIS PLAN IS FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY. SEE SHEET # 15 FOR DETAILS AND NOTES.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
--- 100 ---	--- 100 ---	CONTOUR LINE
• 100.0	• 100.0	SPOT ELEVATION
→	→	DRAINAGE FLOW DIRECTION
⊕	⊕	STORM SEWER INLET W/PROTECTION
⊕	⊕	ROOF LEADER DISCHARGE HEADER W/INLET
— G — G —	— G — G —	GAS LINE
— W — W —	— W — W —	WATER LINE SERVICE
— T — T —	— T — T —	TELEPHONE LINE SERVICE
—	—	SANITARY SEWER PIPE
FFF	FFF	FINISHED FIRST FLOOR ELEVATION
FGF	FGF	FINISHED GARAGE FLOOR ELEVATION
FBF	FBF	FINISHED BASEMENT FLOOR ELEVATION
TC	TC	TOP OF CURB
BC	BC	BOTTOM OF CURB
DC	DC	DEPRESSED CURB
FDC	FDC	FIRE DEPT. WATER CONNECTION
⊕	⊕	FIRE HYDRANT
⊕	⊕	WATER VALVE
⊕	⊕	GAS VALVE
⊕	⊕	SITE LIGHT
⊕	⊕	SANITARY SEWER MANHOLE
⊕	⊕	BELL TELEPHONE CO. MANHOLE
⊕	⊕	UTILITY POLE
---	---	LIMIT OF DISTURBANCE
---	---	SILT FENCE
⊗	⊗	SUBSOIL COMPACTION REMEDIATION AREA



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PER SUSCD:	M.K.F. 7/20/21
REVISIONS:	AUTH. DATE JOB No. 15-09-FS
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.

BY: *Michael K. Ford*
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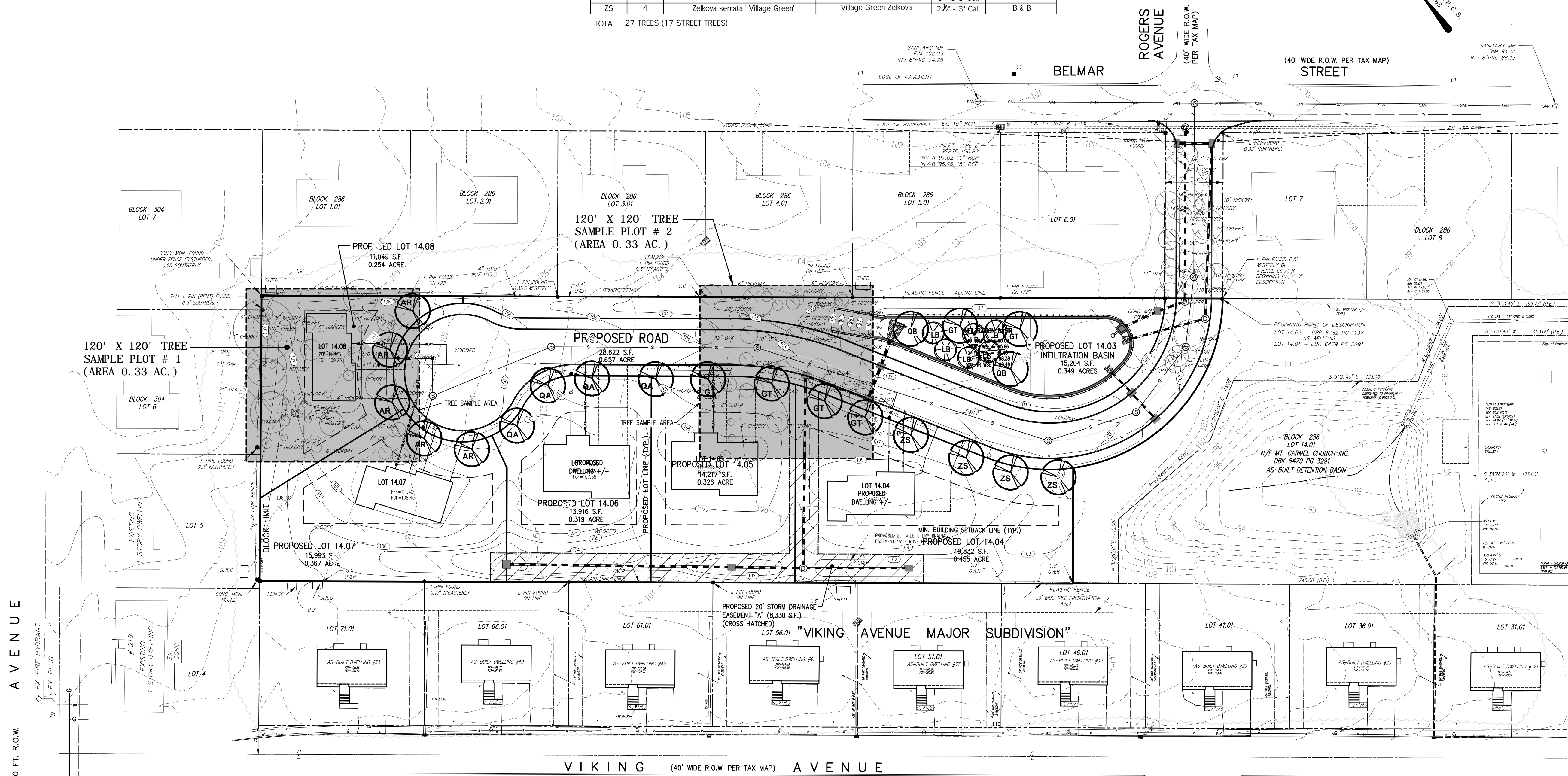
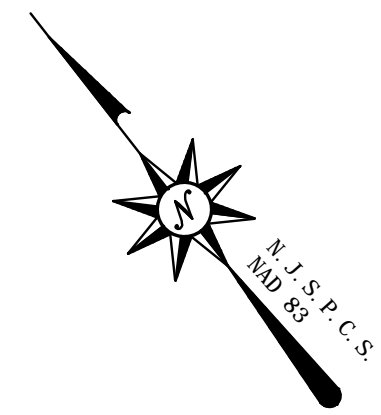
SOIL EROSION AND SEDIMENT CONTROL PLAN

FOR
LOT 14.02 IN BLOCK 286
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

F:_proj\1509FS\ENGIN\1509FS-SITE (2-24-22).dwg

PLANT SCHEDULE					
KEY	QTY.	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
AR	5	Acer Rubrum 'October Glory'	October Glory Red Maple	2 1/2" Cal.	B & B
GT	6	Gleditsia triacanthos 'Skyline'	Skyline Honeylocust	2 1/2" - 3" Cal.	B & B
LB	6	Lindera Benzoin	Spice Bush	3 - 3 1/2" Cal.	B & B
OA	4	Quercus alba	White Oak	2 1/2" - 3" Cal.	B & B
OB	2	Quercus Bicolor	Swamp White Oak	3 - 3 1/2" Cal.	B & B
ZS	4	Zelkova serrata 'Village Green'	Village Green Zelkova	2 1/2" - 3" Cal.	B & B

TOTAL: 27 TREES (17 STREET TREES)



TREE REPLACEMENT CALCULATIONS

0.33 AC TREE PLOT # 1 INVENTORY

TREES GREATER THAN 4" CALIPER:
 33 TREES 4" ≤ 16"
 2 TREES ≤ 18"
 1 TREES ≤ 20"
 3 TREES ≤ 24"
 1 TREE = 36"

0.33 AC TREE PLOT # 2 INVENTORY

TREES GREATER THAN 4" CALIPER:
 31 TREES 4" ≤ 16"
 1 TREES ≤ 18"

AVERAGE QUANTITY PER 0.33 AC PLOT

TREES GREATER THAN 4" CALIPER:
 32 TREES 4" ≤ 16"
 2 TREES ≤ 18"
 1 TREES ≤ 20"
 2 TREES ≤ 24"
 1 TREE = 36"

TOTAL SITE AREA = 2.9 AC. (INCLUDING EXISTING R.O.W.)
 EXISTING TREES/WOODED AREA = 2.9 AC.
 EX. TREES/WOODED AREA TO BE REMOVED = 2.9 AC.

PER TWP. CODE SECTION 222-5.1
 % OF TREES TO BE REMOVED FROM THE ENTIRE DEVELOPMENT = 80-100%
 % OF TREES TO BE REPLACED W/ TREES OF MINIMUM SIZE 2.5" CAL. = 80% (4" ≤ 16")

2.9 AC. TREES TO BE REMOVED = 8.8 - 0.33 AC. PLOTS = 226 TREES
 8.8 X 32 TREES = 282 TREES X 80%
 (226 TREES = 2.5" CAL. TREES REQUIRED)

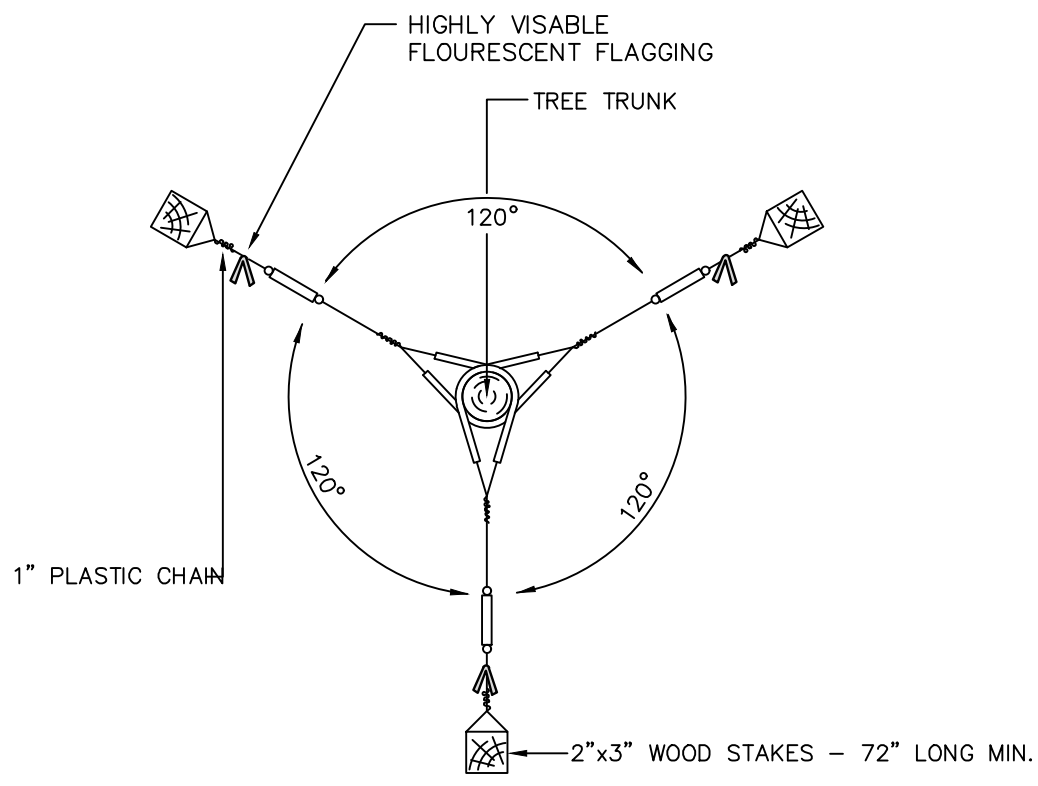
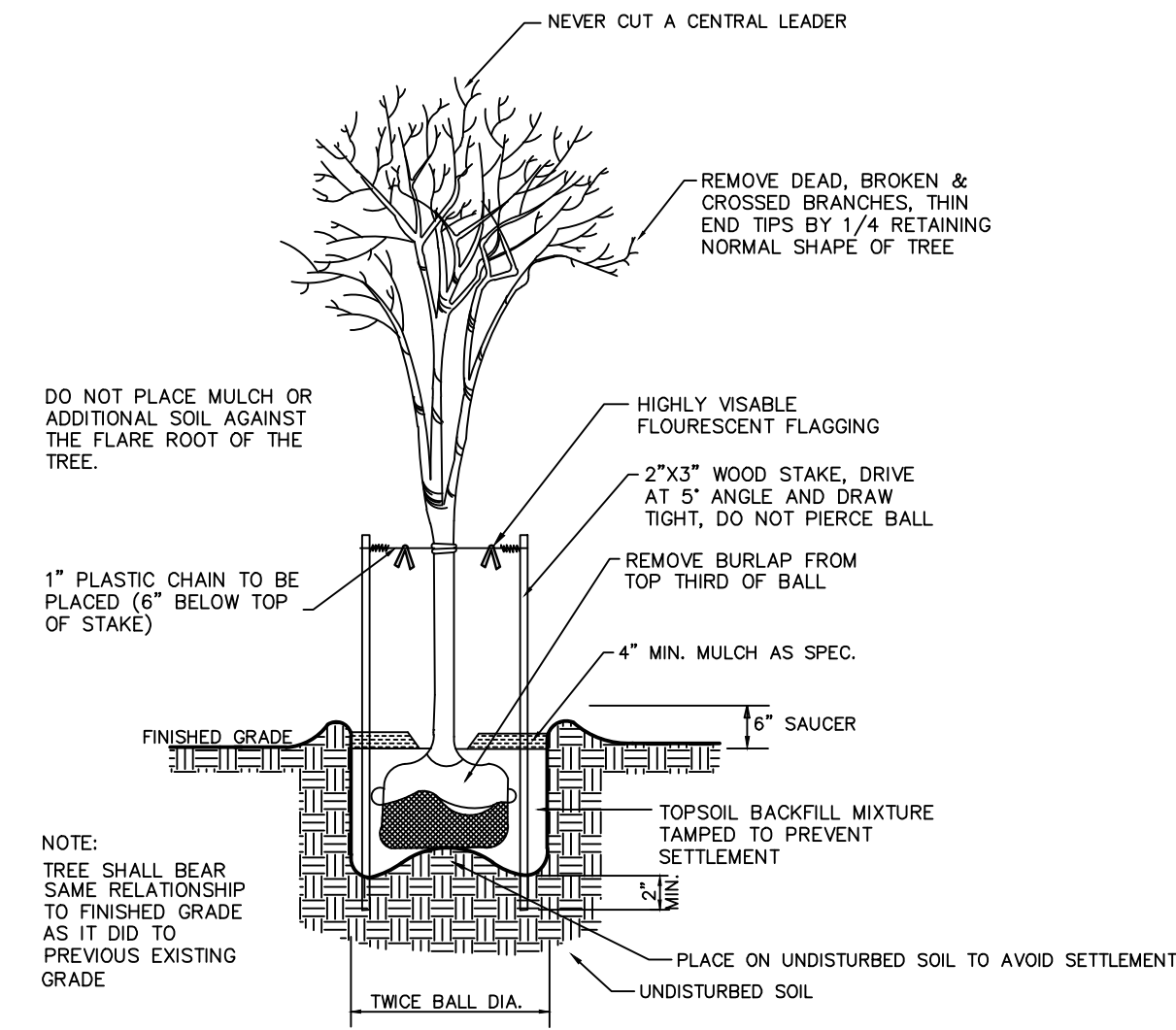
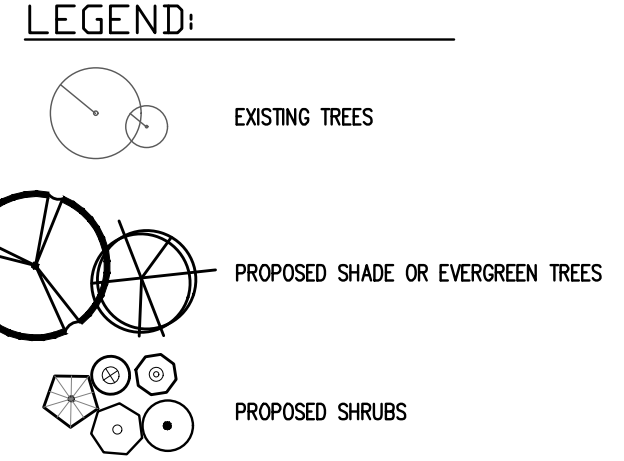
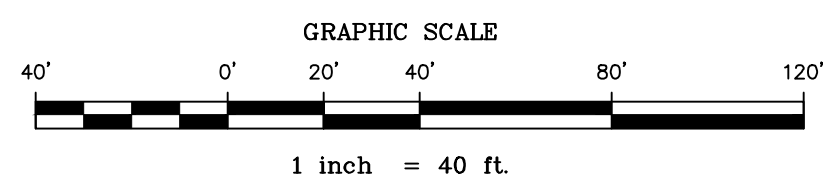
INVENTORY OF TREES GREATER THAN 4" CALIPER TO BE REMOVED @ LOT 14.02 CALIPER

TO BE REMOVED REPLACEMENT TREES	# OF TREES	NUMBER OF	TOTAL TREES
LESS THAN 19"	17.8 TREES	X 3	= 53 TREES
LESS THAN 21"	8.8 TREES	X 4	= 36 TREES
LESS THAN 25"	17.6 TREES	X 5	= 88 TREES
LESS THAN 37"	8.8 TREES	X 11	= 97 TREES
TOTAL:	53 TREES		= 274 TREES

TOTAL REPLACEMENT TREES REQUIRED 226 + 274 = 500 (2.5" CAL. TREES)
 REPLACEMENT TREES PROVIDED = 10 (WAIVER REQUESTED)
 (CONTRIBUTION TO TOWNSHIP TREE FUND TO BE PROVIDED AS MAY BE REQUIRED)

GENERAL LANDSCAPING NOTES

- ALL PLANT MATERIAL IS TO BE FIRST QUALITY NURSERY GROWN STOCK, FREE FROM DISEASE OR OBJECTIONABLE DISFIGUREMENTS, AND PLANTED IN CONFORMANCE WITH SOUND NURSERY PRACTICE AND APPLICABLE TOWNSHIP STANDARDS.
- ALL PLANTINGS ARE TO BE MULCHED WITH 3" MINIMUM DEPTH OF SHREDDED HARDWOOD BARK.
- ALL PLANT MATERIALS ARE TO BE GUARANTEED TO BE IN HEALTHY AND VIGOROUS CONDITION FOR TWO YEARS.
- IF A DISCREPANCY EXISTS BETWEEN THE QUANTITY OF PLANTS SHOWN ON THE PLAN AND THE QUANTITY OF PLANTS INDICATED IN THE SCHEDULE, THE PLAN SHALL TAKE PRECEDENCE OVER THE SCHEDULE.
- ALL AREAS NOT LANDSCAPED WITH RIVER WASHED STONE OR MULCHED PLANTING BEDS SHALL BE STABILIZED WITH EITHER SOD OR SEED FOR GRASS LAWNS. SUCH AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED, AND FINE GRADED PRIOR TO LAWN INSTALLATION (SEE SOIL EROSION AND SEDIMENT CONTROL DETAILS AND NOTES).
- A TEMPORARY FENCE, SUCH AS A SNOW FENCE, SHALL BE ERRECTED AT THE PERIMETER OF THE DRIP LINE OF ALL EXISTING VEGETATION INDICATED TO REMAIN PRIOR TO ANY EXCAVATION, CONSTRUCTION, OR OTHER SITE WORK. THIS FENCE MAY BE REMOVED ONLY AT THE TIME OF COMPLETION OF ALL CONSTRUCTION AND FINAL GRADING.
- ALL PLANT RELOCATIONS OR SUBSTITUTIONS SHALL BE SUBMITTED TO THE TOWNSHIP FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.



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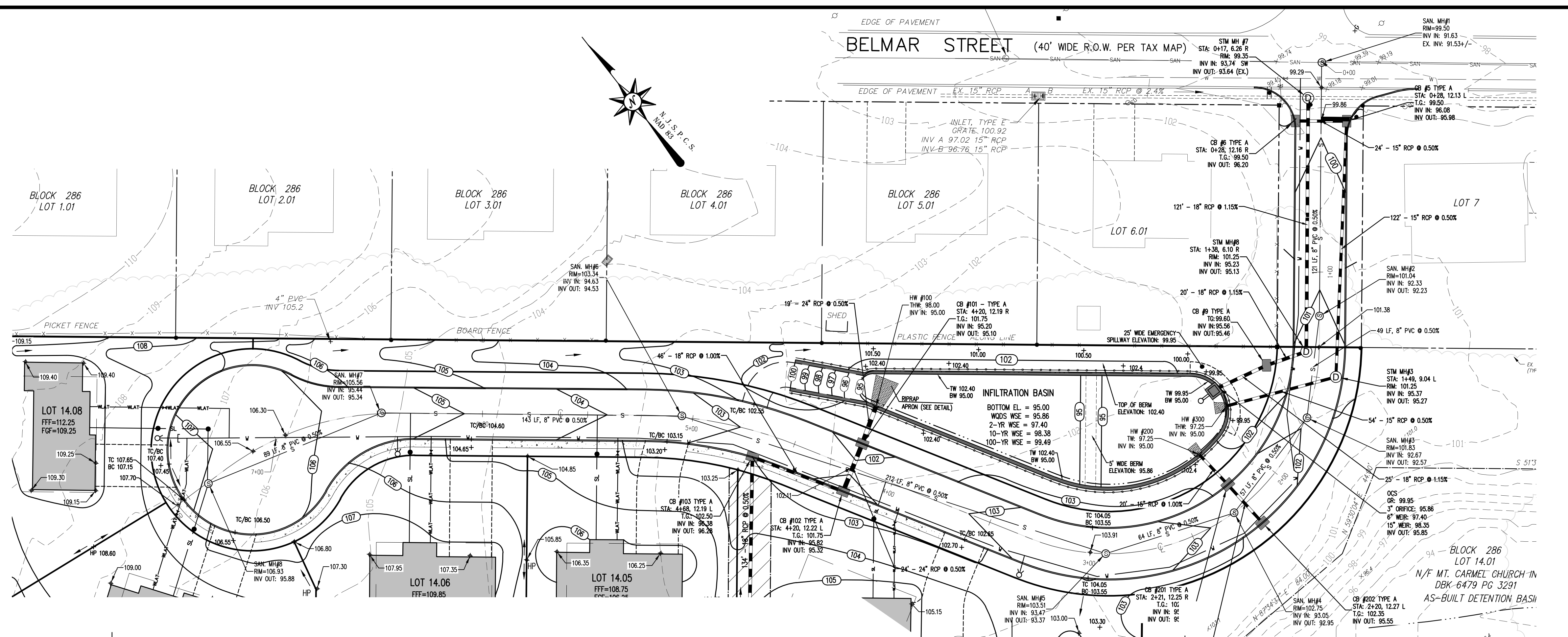
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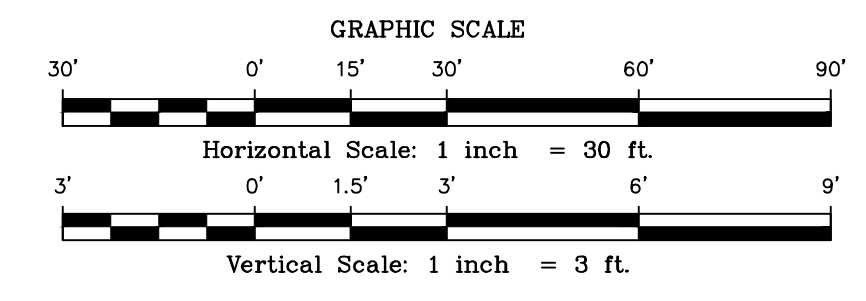
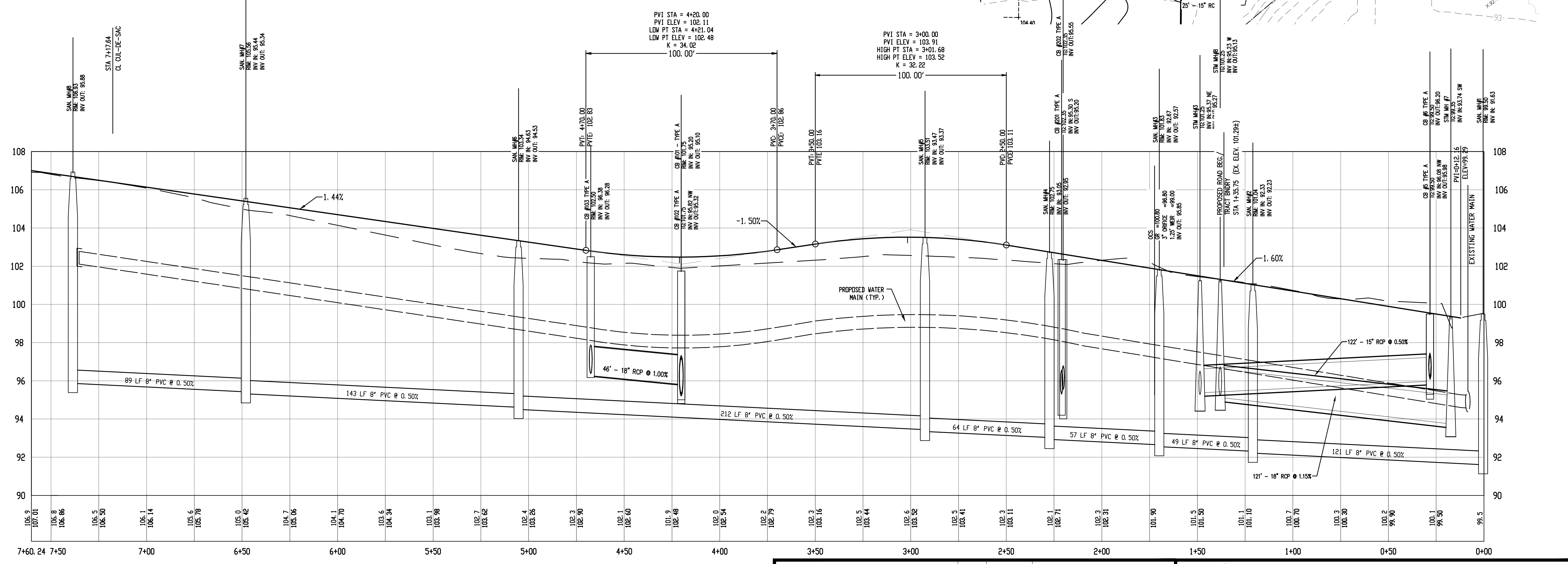
LANDSCAPING AND TREE MITIGATION PLAN
 FOR
 LOT 14.02 IN BLOCK 286
 SITUATED IN
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY

BELMAR STREET (40' WIDE R.O.W. PER TAX MAP)



PIPE CROSSING TABLE

STATION	PROPOSED ROAD 'A' UTILITIES	CROSSING PIPE / SIZE	CLEARANCE DISTANCE BETWEEN PIPES
4+28.2	SAN. MH#6 - MH#5 / 8" PVC	STM. CB #101 - CB #102 / 24" RCP	0.36 FT.
2+20.5	SAN. MH#4 - MH#3 / 8" PVC	STM. HW #300 - STM MH #3 / 15" RCP	1.48 FT.
1+52.4	SAN. MH#3 - MH#2 / 8" PVC	STM. HW #300 - STM MH #3 / 15" RCP	1.65 FT.
0+28.2	SAN. MH#2 - MH#1 / 8" PVC	STM. CB #5 - CB #6 / 15" RCP	0.72 FT.
0+28.2	STORM MH #8 - MH #7 / 15" RCP	STM. CB #5 - CB #6 / 15" RCP	0.81 FT.



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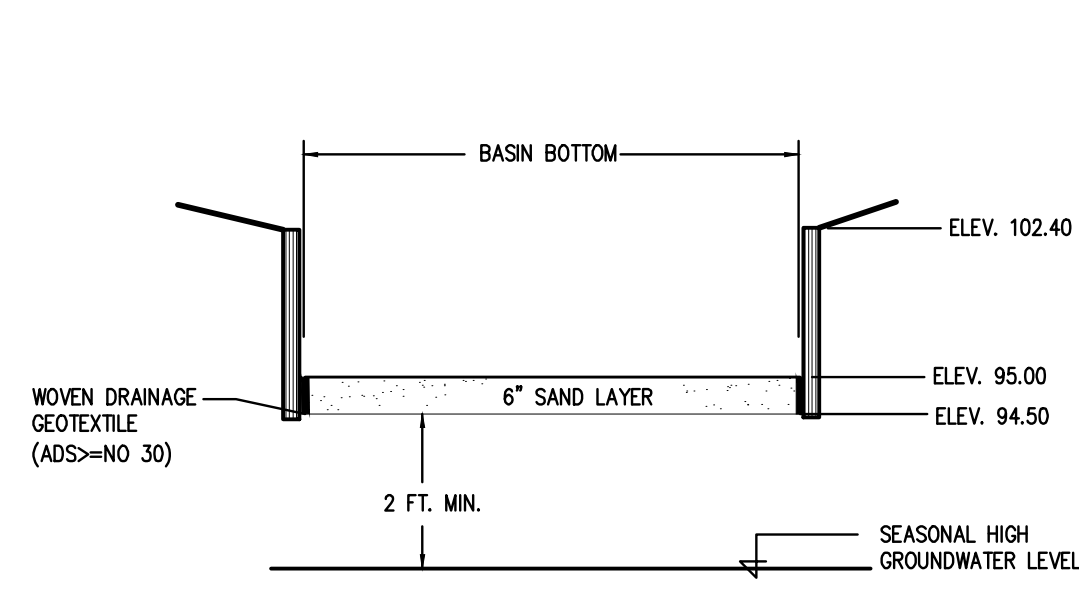
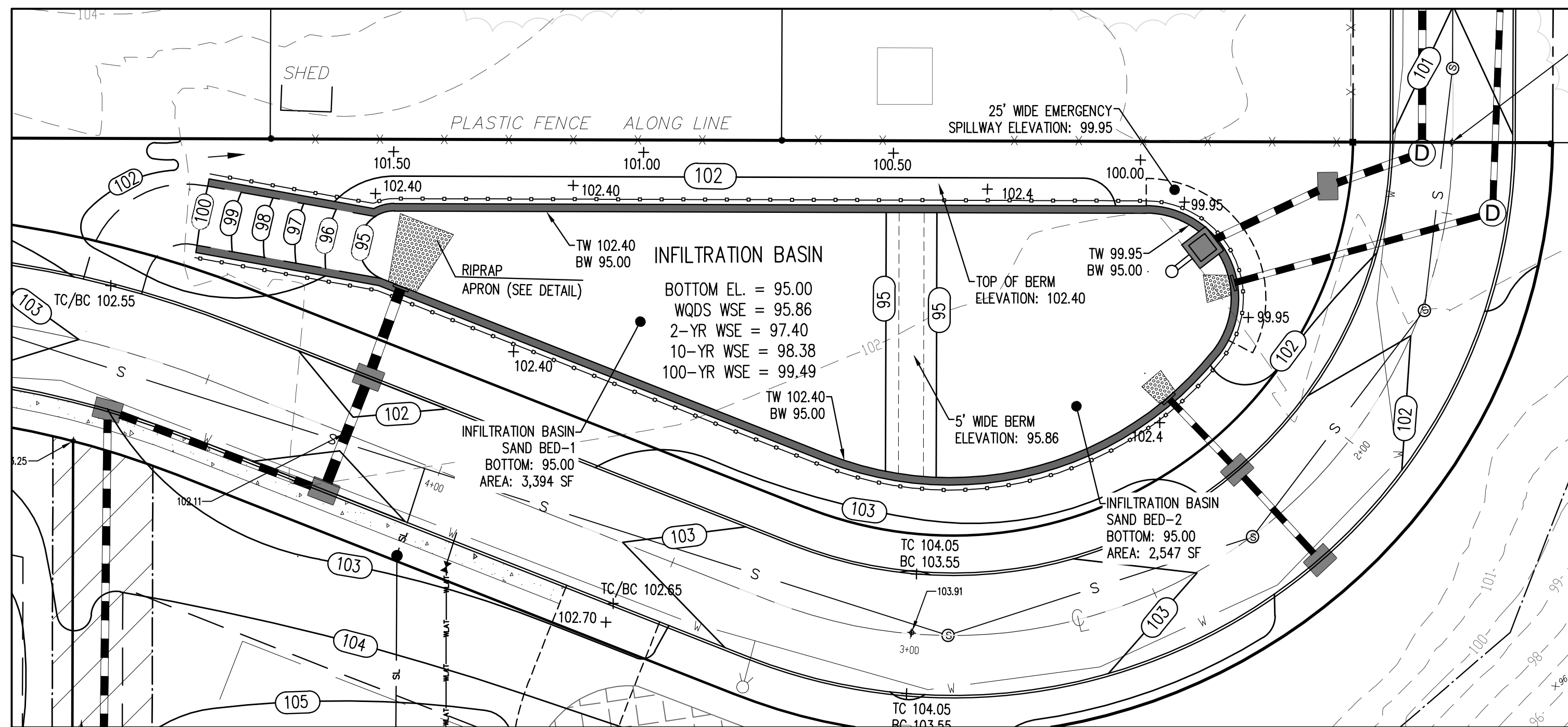
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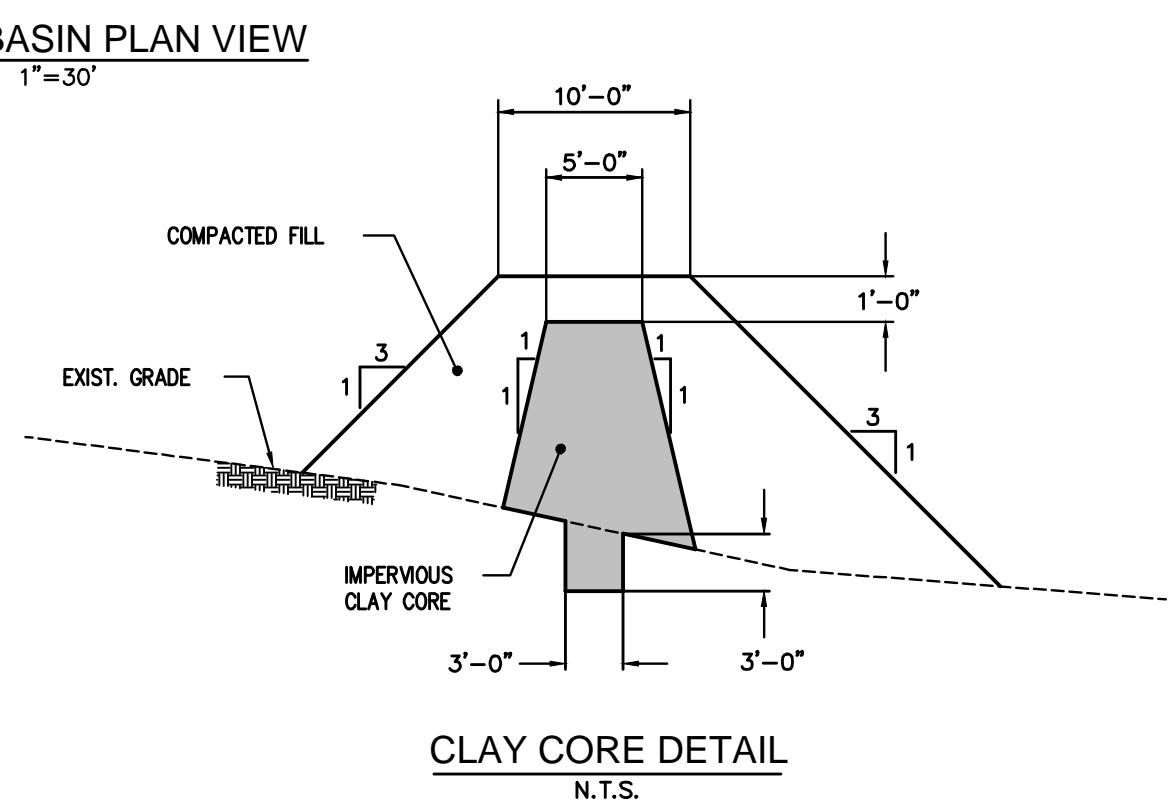
BY: *Michael K. Ford*
Michael K. Ford
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PROPOSED ROAD PLAN & PROFILE
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

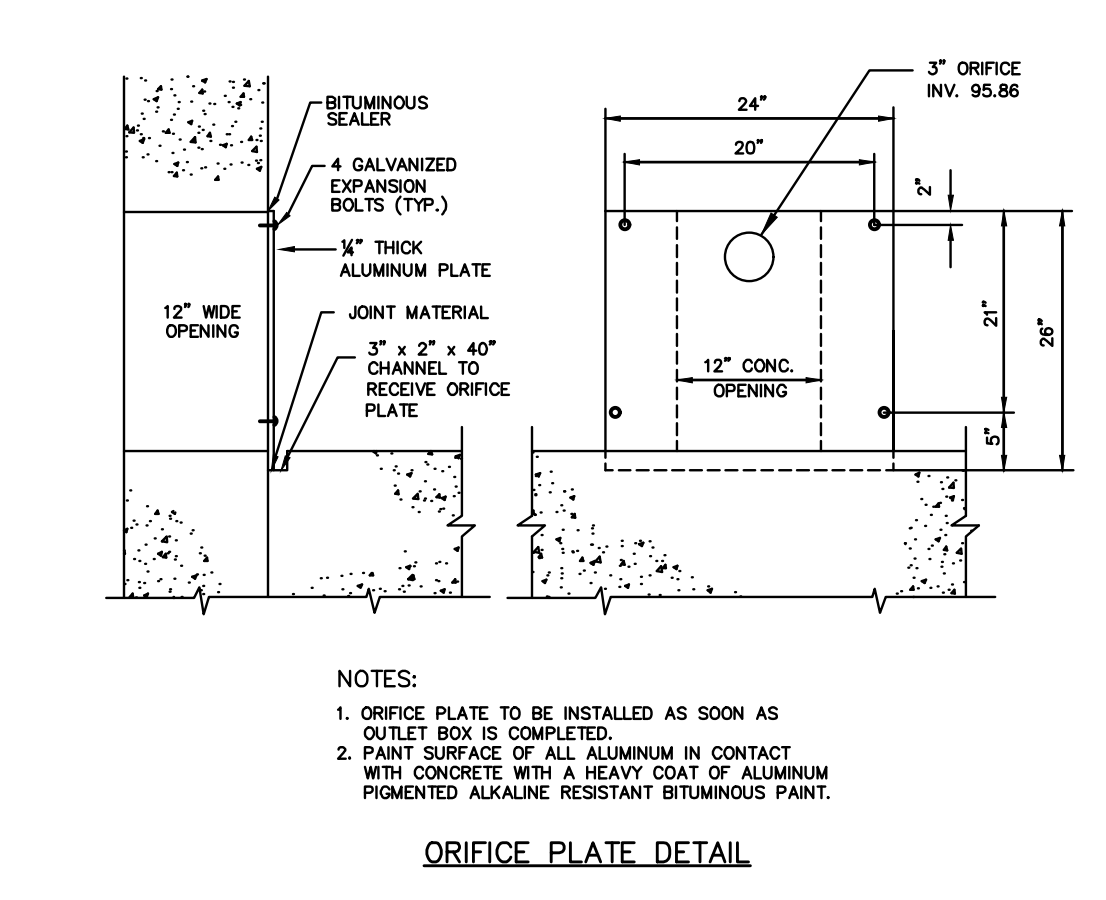
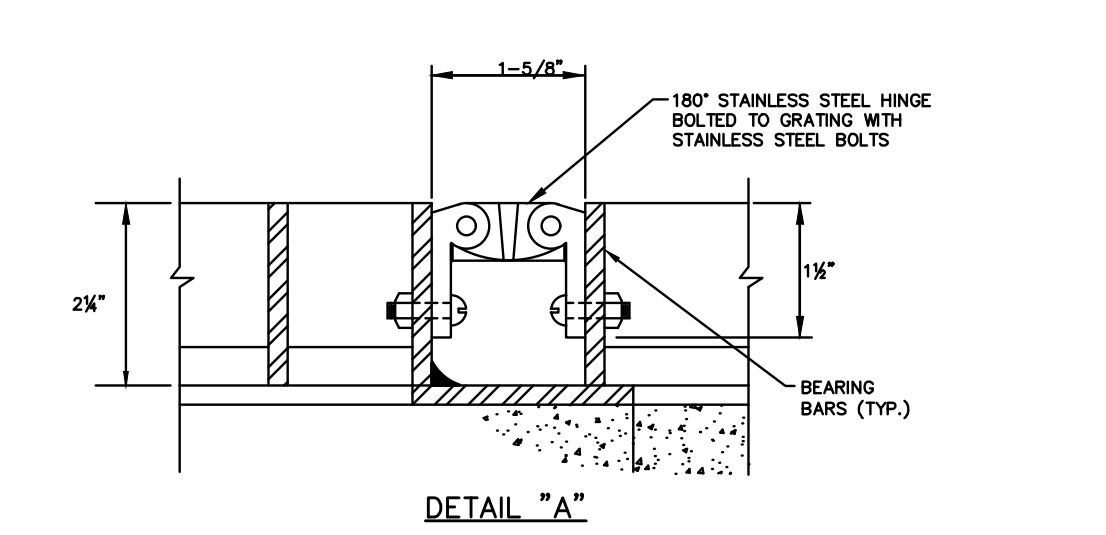
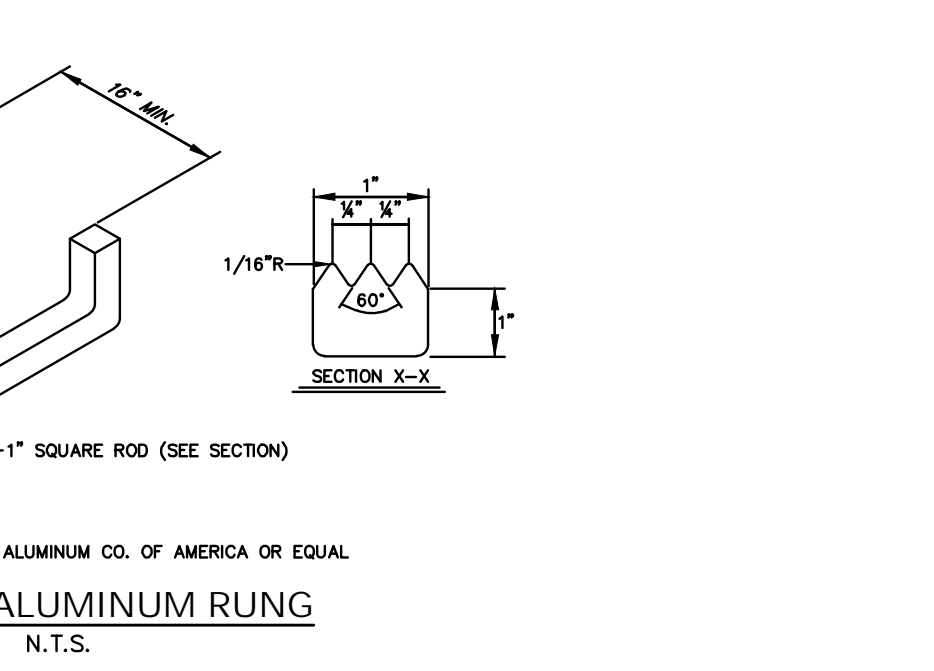
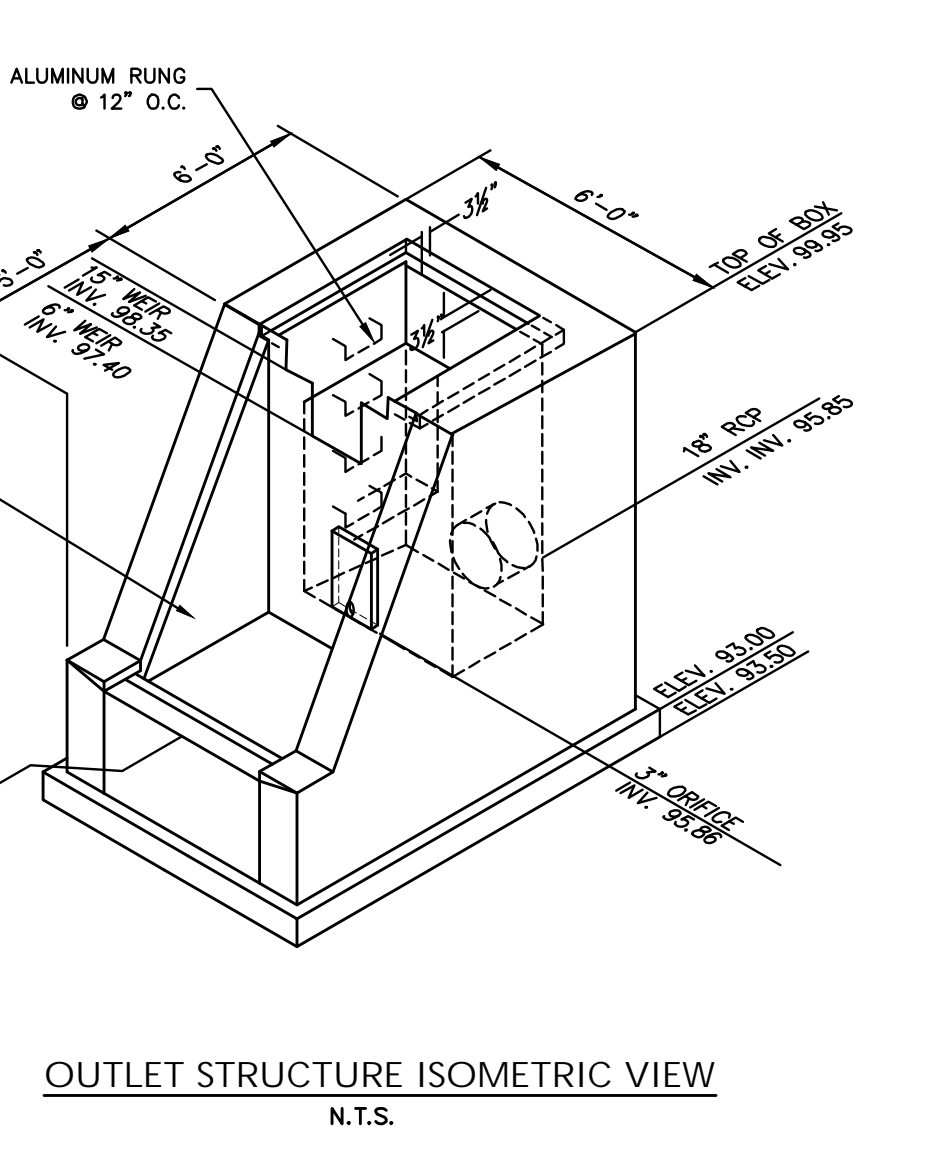
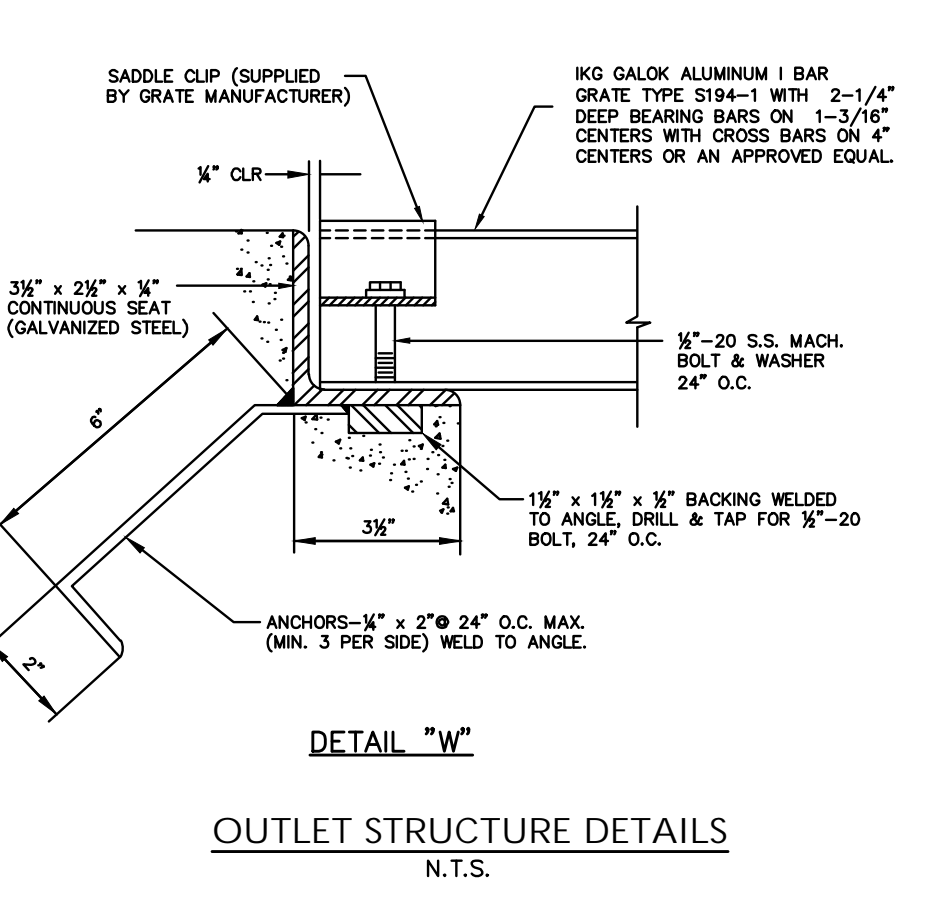
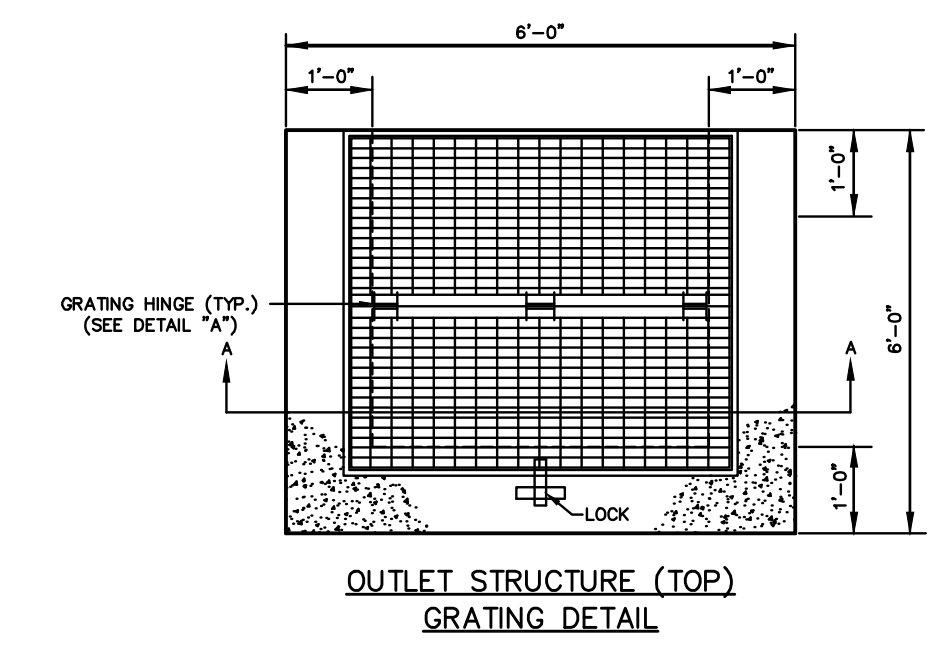
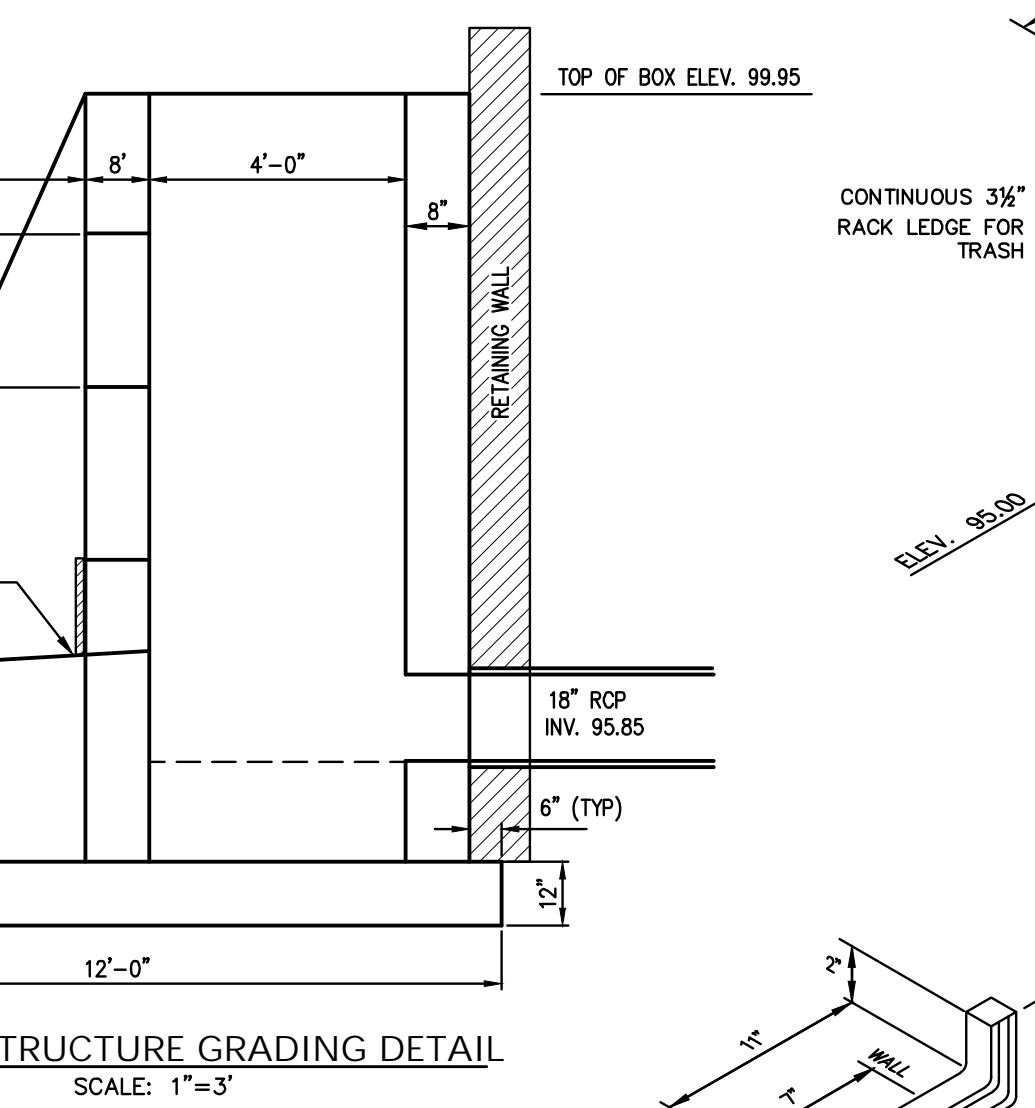
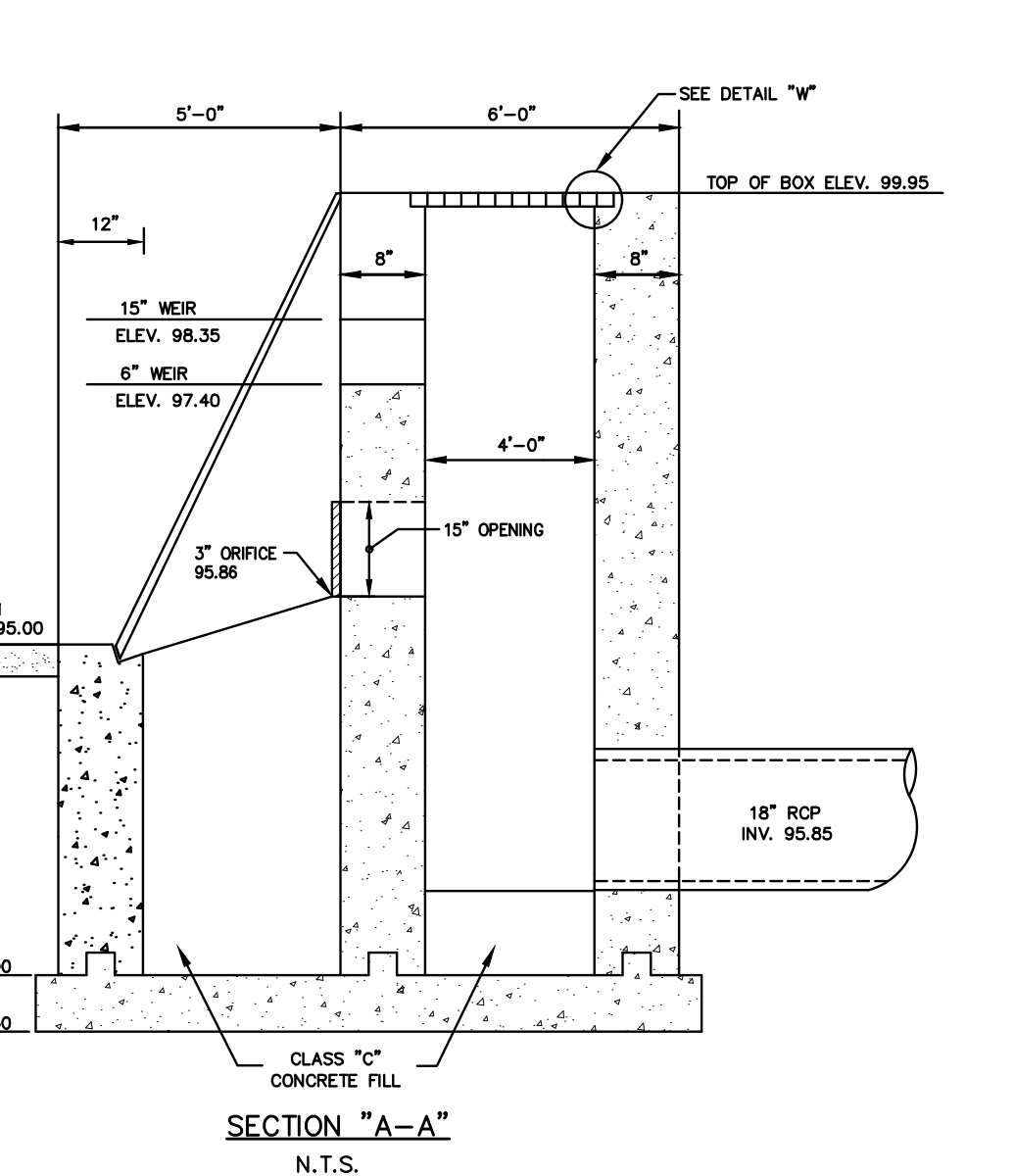
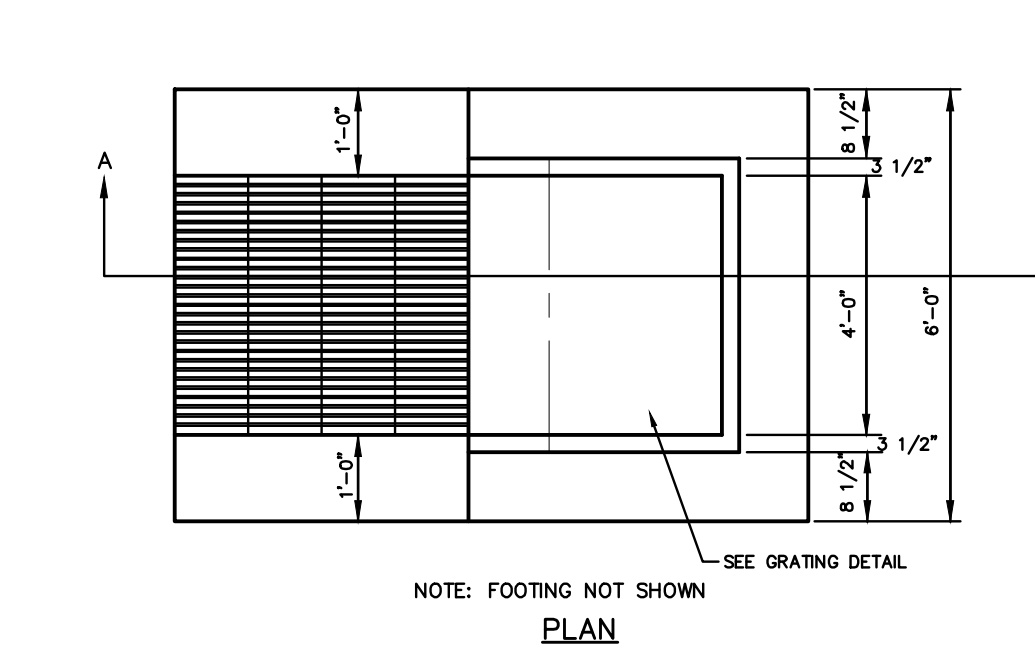
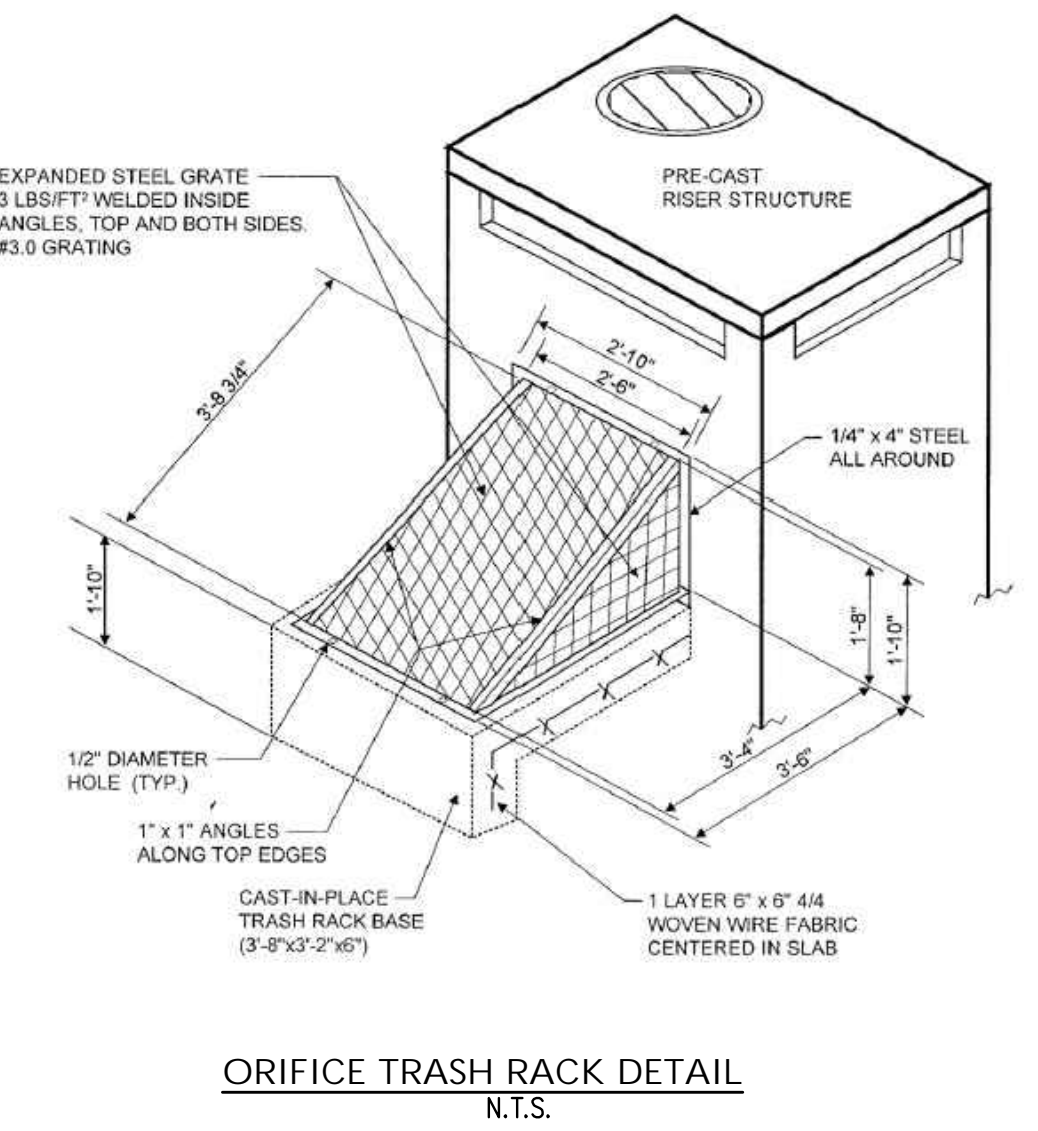
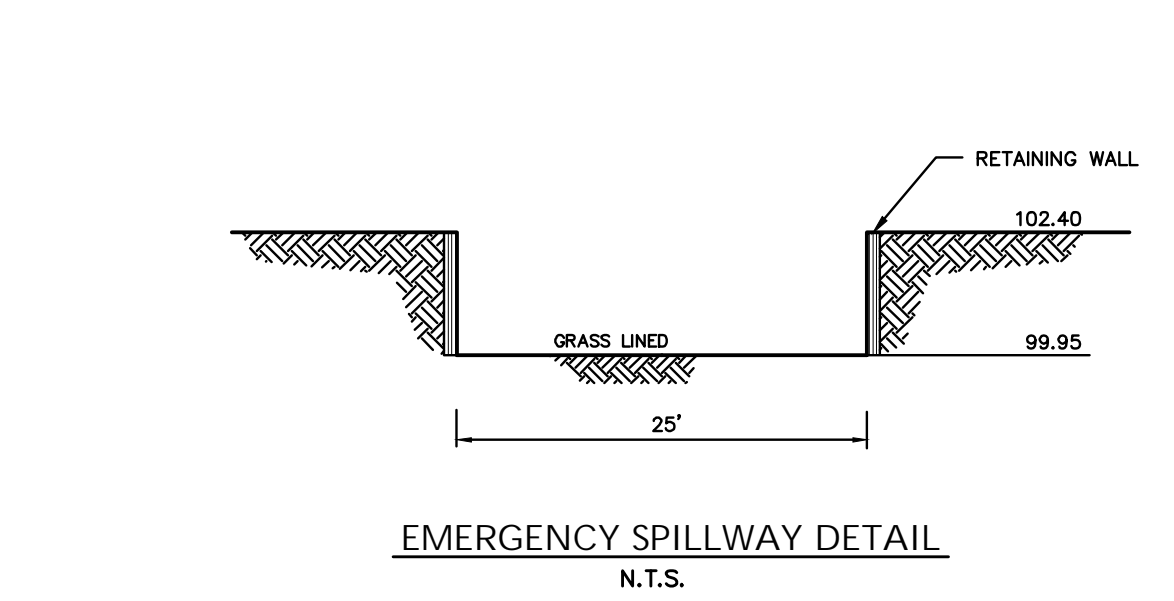


NOTE: CARE MUST BE TAKEN TO ENSURE THAT GRADING ACTIVITIES ARE PERFORMED BY LIGHT WEIGHT EQUIPMENT TO PREVENT THE COMPACTION OF THE SOIL.

NOTES:
1. 6" THICK BOTTOM SAND LAYER SHALL CONSIST OF NO SAND
2. WITH NO MORE THAN 15% FINES AND SHALL HAVE A MINIMUM INFILTRATION RATE OF 20 INCHES PER HOUR.
3. NO CONSTRUCTION EQUIPMENT PERMITTED IN THE AREA OF THE BASIN BOTTOM.
4. FILTER FABRIC SHALL BE INSTALLED ALONG THE SIDES OF THE INFILTRATION BASIN TO PREVENT MIGRATION OF FINE PARTICLES FROM THE SURROUNDING SOIL.
5. SEE TEXT FOR ADDITIONAL REQUIREMENTS AND DESCRIPTIONS.



- EMBANKMENT AND BASIN CLAY CORE**
- The clay core shall consist of compacted clay material (unified soil classification "CL").
 - The fill material in all earth dams and embankments shall be compacted to at least 95% of the maximum density obtained from compaction tests performed by the appropriate method in ASTM D698.
 - Trees and other vegetation with large extensive root structure shall not be permitted on any dam or embankment.
 - The basin is to be topped with a minimum of 4 inches of topsoil and seeded, including the bottom, side slopes and all earthen dams and embankments. "Topsoil" is defined as the natural, undisturbed surface layer of soil having more organic matter than subsequent layers suitable for satisfactory growth and maintenance of permanent, locally adapted vegetation. The material must be friable, loamy soil reasonably free of debris, objectionable weeds, lumps, roots, stones or similar objects larger than 2 inches in any dimension; have a natural pH of 5.0 to 7.5; have an organic matter content greater than 2.00% and contain no toxic substances which may be harmful to plant growth. The seeding shall, as a minimum, conform to Type "A" grass seed mixture as defined in the NJDOT standard specifications for road and bridge construction.



NOTES:
1. ORIFICE PLATE TO BE INSTALLED AS SOON AS OUTLET BOX IS COMPLETED.
2. PAINT SURFACE OF ALL ALUMINUM IN CONTACT WITH CONCRETE WITH A HEAVY COAT OF ALUMINUM PIGMENTED ALKALINE RESISTANT BITUMINOUS PAINT.

INFILTRATION BASIN CONSTRUCTION NOTES:

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE MOST RECENT N.J. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND SUPPLEMENTS.
- ALL CONCRETE SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 3000 P.S.I. ALLOWABLE EXTREME FIBER STRESS IN COMPRESSION SHALL BE 1200 P.S.I.
- ALL CONCRETE SHALL BE PLACED ON FIRM UNDISTURBED SOIL OR CLEAN ROCK.
- ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1 INCH, 45 DEGREE CHAMFER UNLESS OTHERWISE APPROVED.
- COMPACTED POROUS FILL WHERE REQUIRED, SHALL BE NO. 8 BROKEN STONE.
- ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE, NEW PREFORMED BILLET-STEEL CONFORMING TO A.S.T.M. A615 (LATEST EDITION), GRADE 60 MINIMUM. ALLOWABLE STRESS IN TENSION SHALL BE 24,000 P.S.I.
- ALL REINFORCEMENT STEEL SPLICES SHALL BE MINIMUM 30 BAR DIAMETERS UNLESS NOTED OTHERWISE.
- FINAL REINFORCEMENT STEEL BAR LIST SHALL BE SUBMITTED PRIOR TO FINAL APPROVAL.
- ALL REINFORCEMENT SHALL BE SUITABLY SUPPORTED AND SECURELY HELD IN PLACE WHILE PLACING CONCRETE.
- ALL EARTH SHALL BE FREE FROM BRUSH, ROOTS AND OTHER ORGANIC MATERIAL SUBJECT TO DECOMPOSITION.
- MAXIMUM SLOPES FOR ALL EMBANKMENTS ARE 3 HORIZONTAL TO 1 VERTICAL.
- CUTOFF TRENCHES ARE TO BE EXCAVATED ALONG THE EMBANKMENT CENTERLINE TO IMPERVIOUS SUBSOIL OR BEDROCK.
- THE FILL MATERIAL IN ALL EARTH EMBANKMENTS SHALL BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DENSITY OBTAINED FROM COMPACTION TESTS PERFORMED BY THE APPROPRIATE METHOD OF A.S.T.M. D698.
- PRIOR TO PLACEMENT OF FILL MATERIAL, THE EXISTING GROUND SURFACE BENEATH THE EMBANKMENT SHALL BE CLEARED OF ALL TREE STUMPS, UNDERBRUSH AND ALL OTHER ORGANIC MATERIAL. FOLLOWING CLEARING, THE SURFACE ON OR AGAINST WHICH THE FILL IS TO BE PLACED SHALL BE THOROUGHLY BROKEN TO A DEPTH OF SIX (6) INCHES. THE BREAKING OF THE SURFACE SHALL BE DONE PARALLEL TO THE CENTERLINE OF THE EMBANKMENT.
- THE DESIGN DIMENSIONS OF THE INFILTRATION BASIN SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION UNLESS IT IS TO BE USED AS A SILTATION BASIN DURING CONSTRUCTION IN THE WATERSHED. IF SO, IT SHALL BE IMMEDIATELY RETURNED TO DESIGN DIMENSIONS FOLLOWING THE COMPLETION OF SUCH CONSTRUCTION.
- OUTLET STRUCTURE IS TO BE PRECAST. STRUCTURAL CALCULATIONS AND SHOP DRAWINGS PREPARED BY THE PRECAST MANUFACTURER MUST BE SUBMITTED FOR COUNTY APPROVAL PRIOR TO FABRICATION. SINCE THE STRUCTURE IS GREATER THAN 7' IN HEIGHT STRUCTURE IS TO BE CONSTRUCTED IN TWO SEPARATE POURS. CONSTRUCTION JOINTS BETWEEN THE POURS SHALL BE ROUGH AND THE REINFORCING STEEL SHALL EXTEND 1'-6" FROM THE JOINT FOR SPLICING. ALL CONSTRUCTION JOINTS ARE TO BE WATERTIGHT. ALL PIPES, STUBS, AND/OR FITTINGS ARE TO BE CAST MONOLITHICALLY IN THE STRUCTURE. STRUCTURAL CALCULATIONS (USING THE WORKING STRESS METHOD) ARE TO BE SUBMITTED FOR OUTLET STRUCTURE REVIEW. ALL EXPOSED EDGES SHALL HAVE A 1" CHAMFER AND ALL REINFORCING SHALL HAVE A MINIMUM COVER OF 3".
- PSX DIRECT DRIVE AND ADS PIPE ADAPTER MANUFACTURED BY PRESS SEAL GASKET CORPORATION OR APPROVED EQUAL TO BE UTILIZED FOR A WATERTIGHT SEAL BETWEEN THE OUTLET STRUCTURE AND HDPE PIPE.

		DATE: DECEMBER 15, 2017
		SCALE: AS SHOWN
		DESIGNED BY: M.K.F./M.R.
PER TOWNSHIP	M.K.F.	3/24/22
PER DRCC	M.K.F.	7/30/21
REVISIONS	AUTH.	DATE
		CHECKED BY: A.B.
		DESIGNED BY: M.K.F.
		JOB No. 15-09-FS

Van Cleef
ENGINEERING ASSOCIATES

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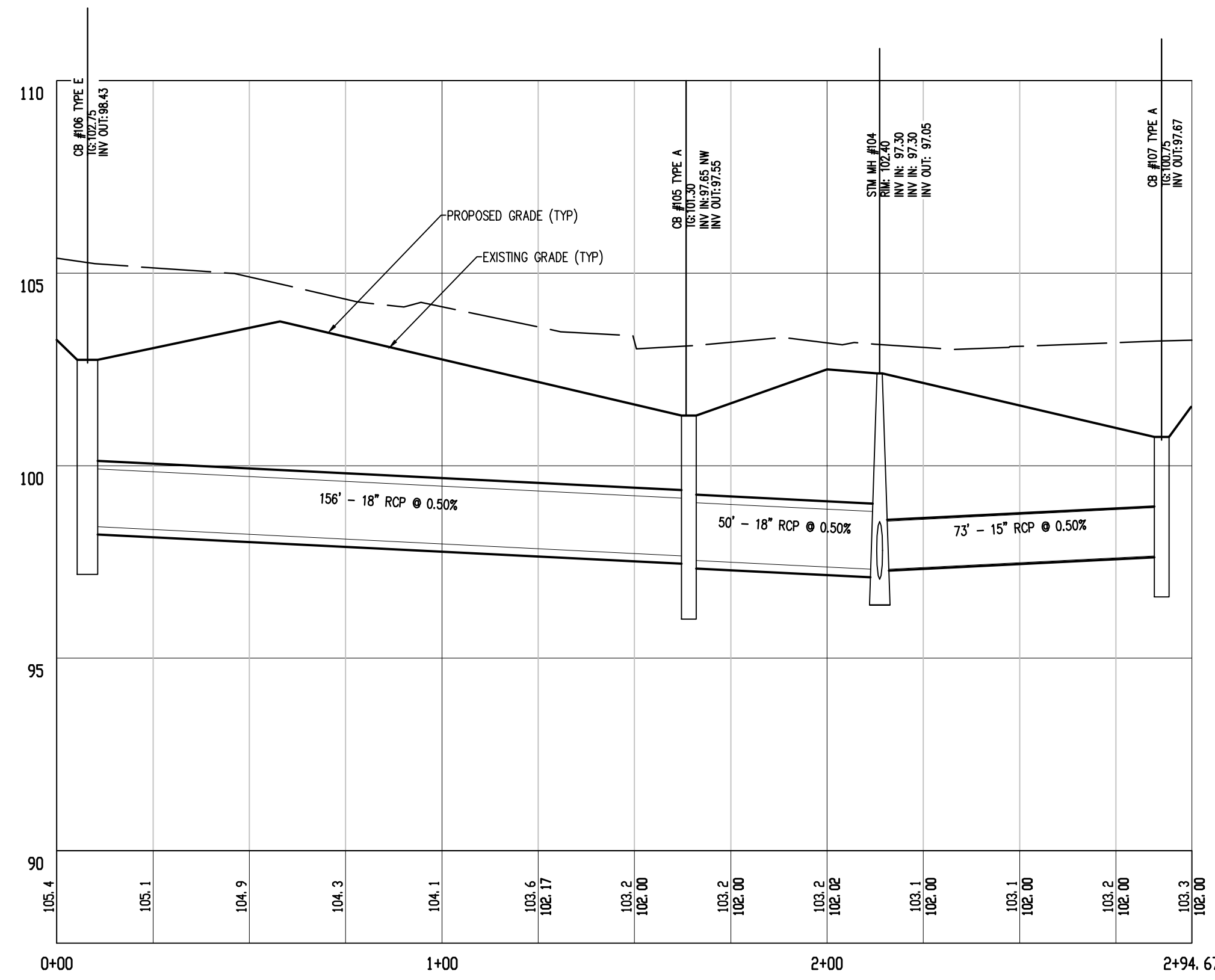
32 BROWER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
EMAIL: VCC@VCEA.ORG WEB: WWW.VCEA.ORG
PHONE: (908) 559-6591 FAX: (908) 559-1560

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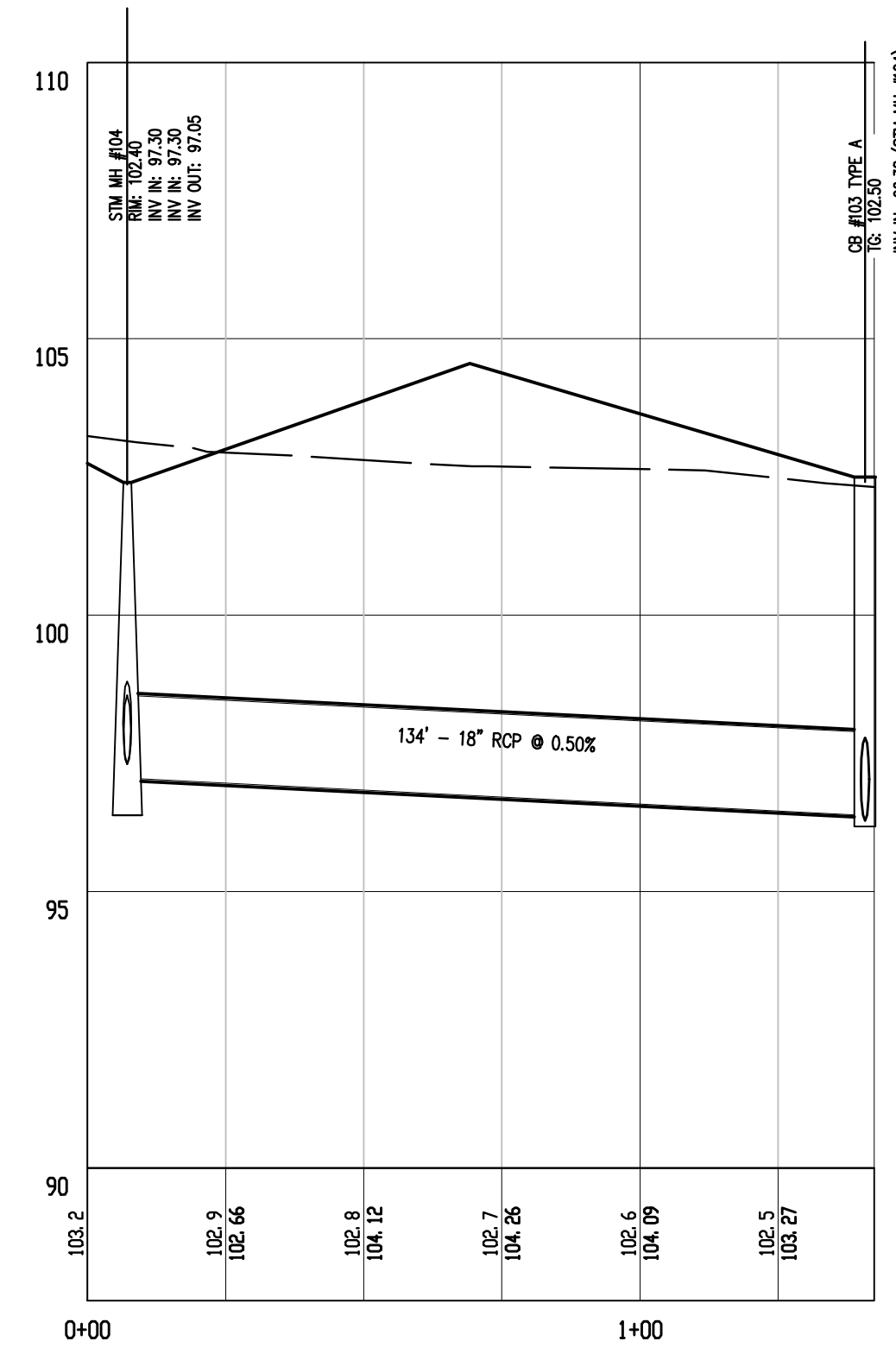
NJ LIC. CERT. NO. 24GA28132300

INFILTRATION BASIN PLAN & DETAILS
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

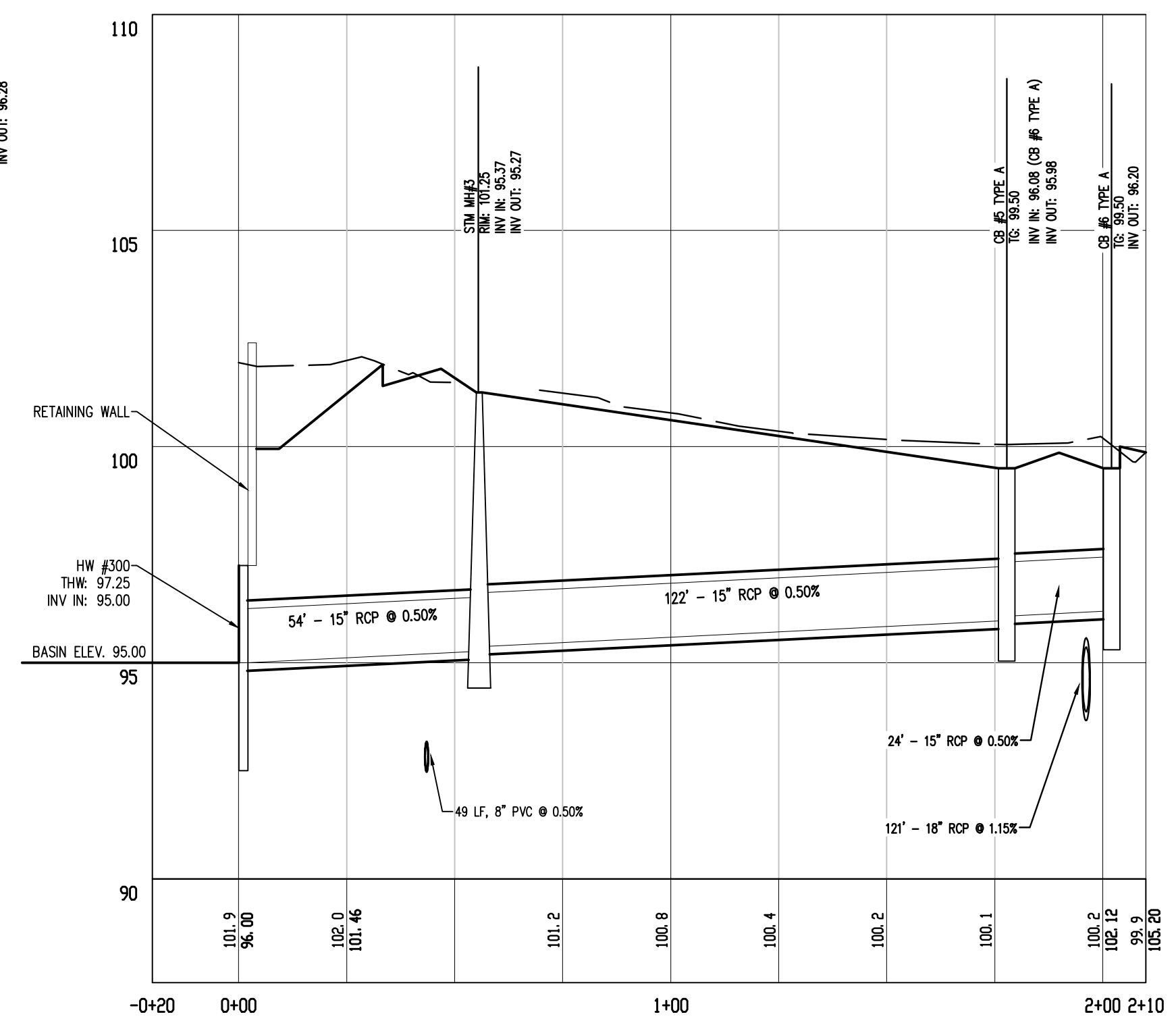
BY: *Michael K. Ford*
Michael K. Ford
New Jersey Professional Engineer
No. 34722



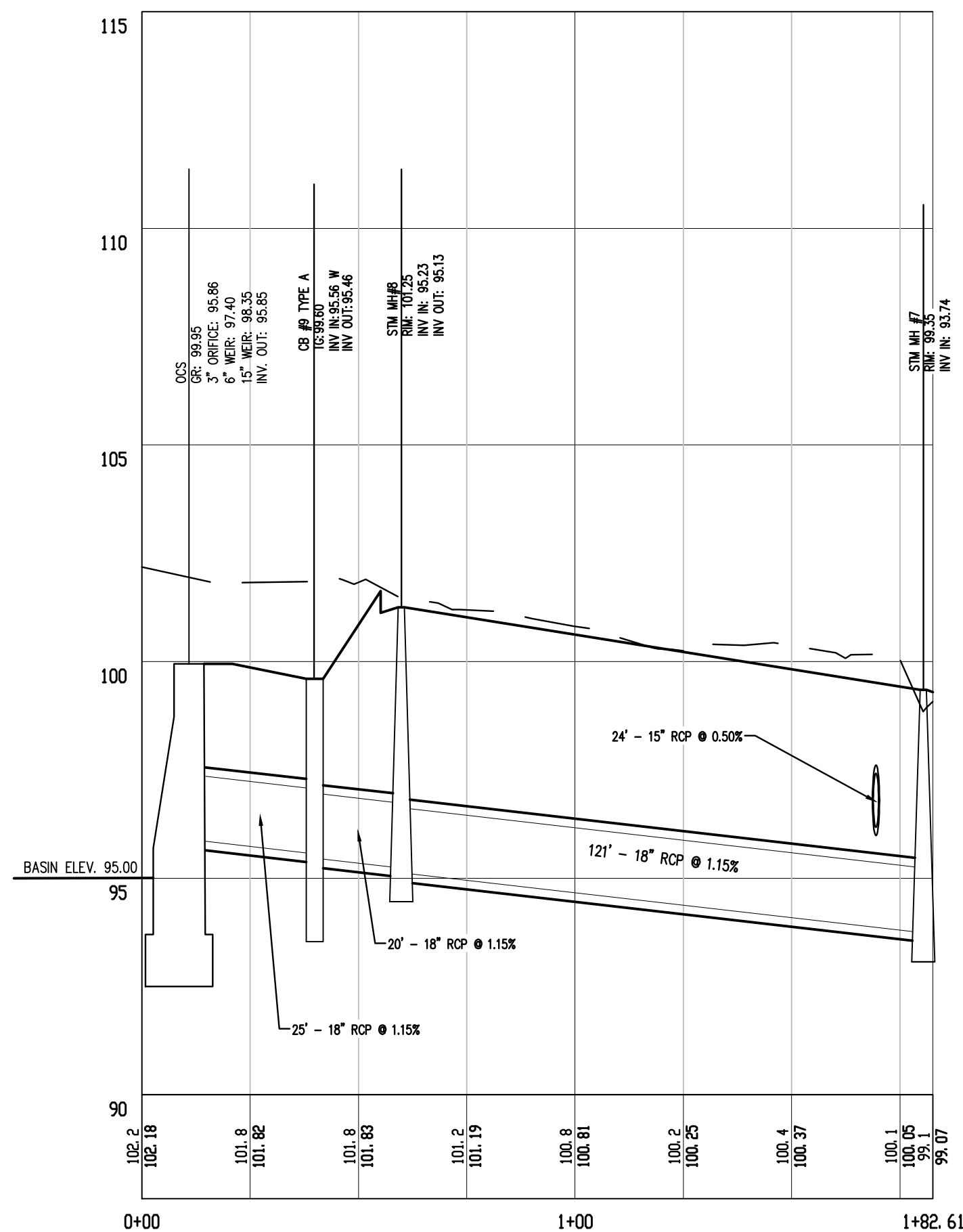
STORM SEWER PROFILE CB #106 - CB #107



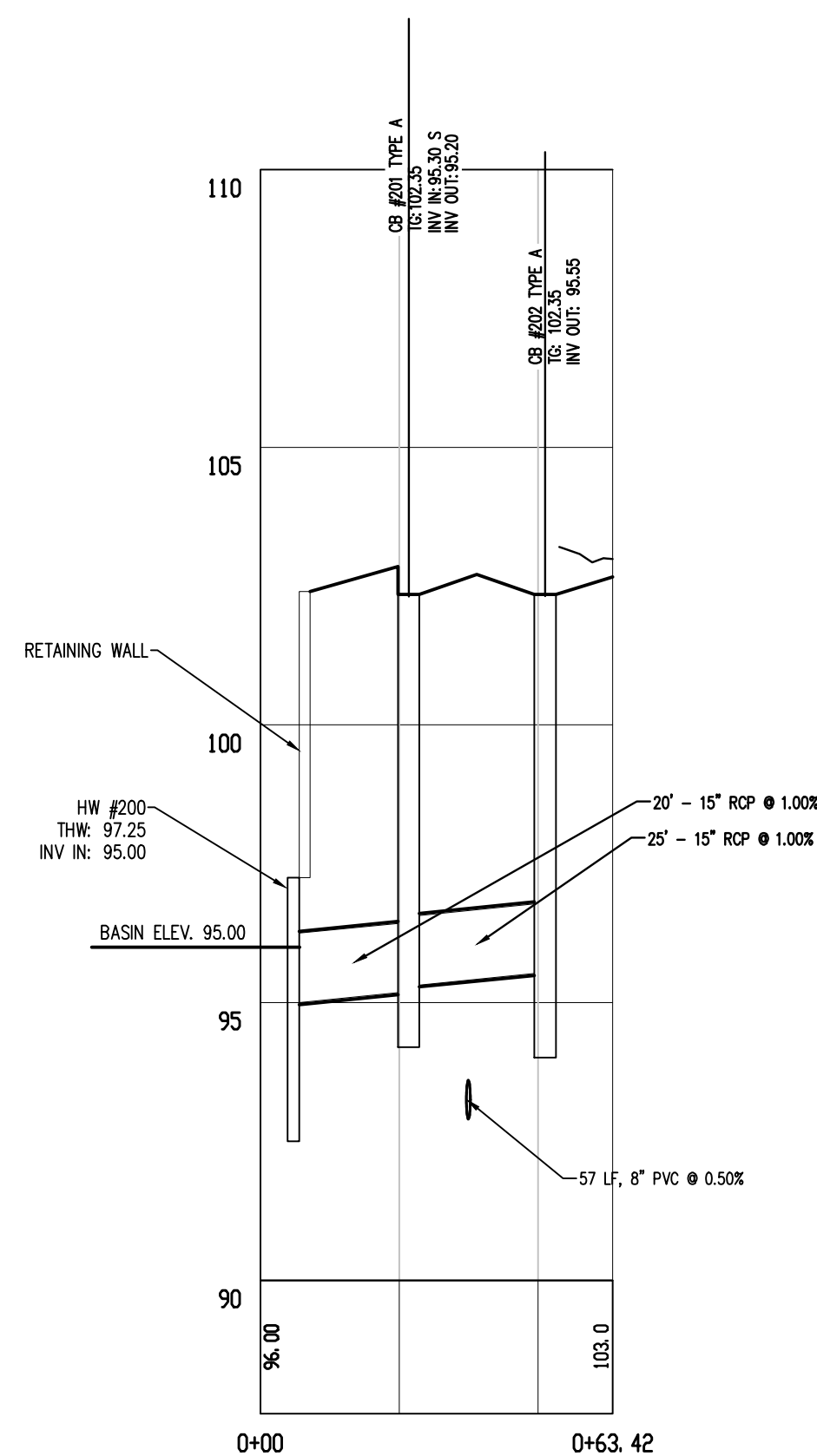
STORM SEWER PROFILE STM MH #104 - CB #103



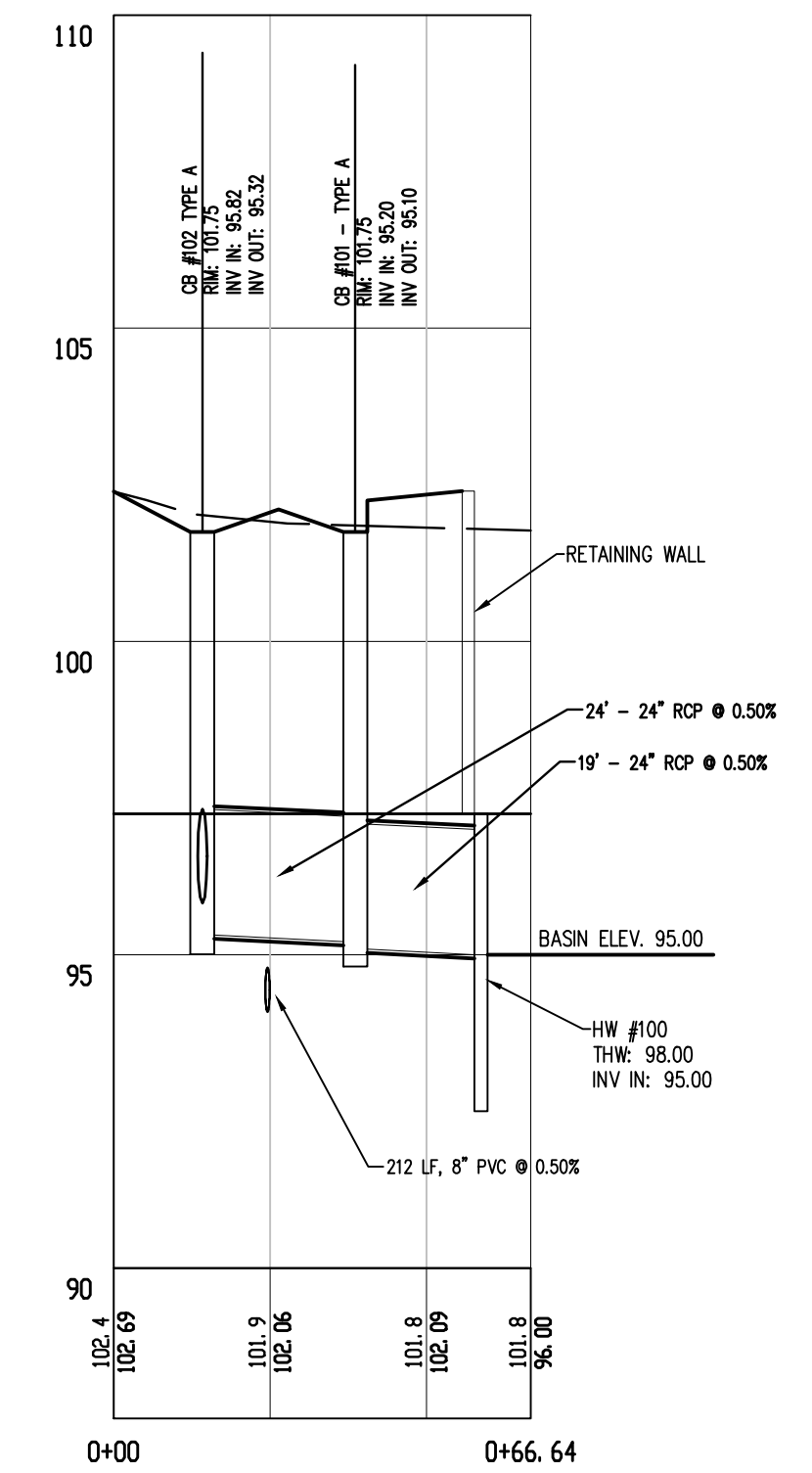
STORM SEWER PROFILE HW #300 - CB #6



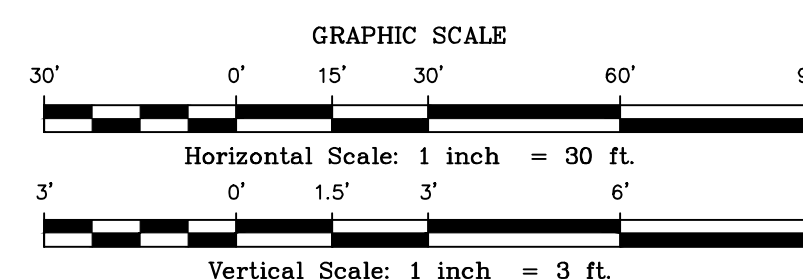
STORM SEWER PROFILE OCS - STM MH #7



STORM SEWER PROFILE HW #200 - CB #202



STORM SEWER PROFILE HW #100 - CB #102



DATE:	DECEMBER 15, 2017
SCALE:	AS SHOWN
DESIGNED BY:	M.K.F./M.R.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
PER TOWNSHIP	M.K.F. 3/24/22
REVISIONS	AUTH. DATE JOB No. 15-09-FS

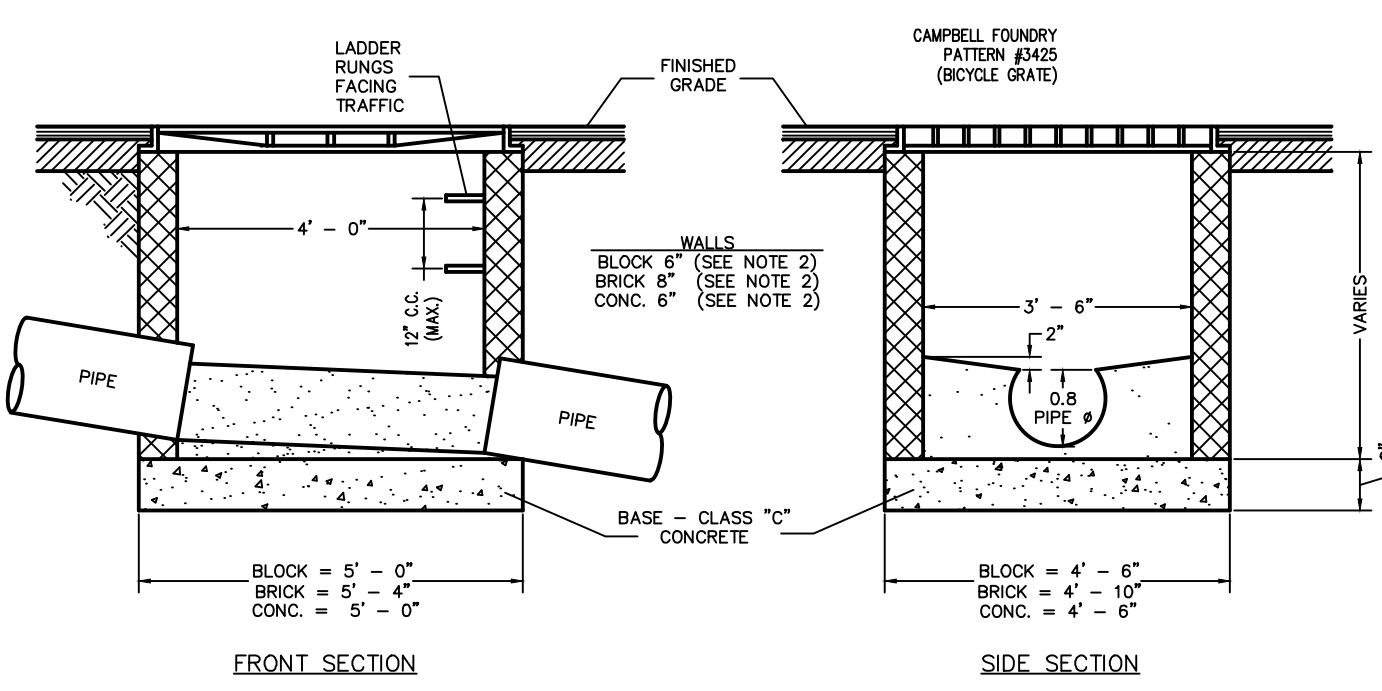
BY: *Michael K. Ford*
 Michael K. Ford
 New Jersey Professional Engineer
 No. 34722

Van Cleef
 ENGINEERING ASSOCIATES

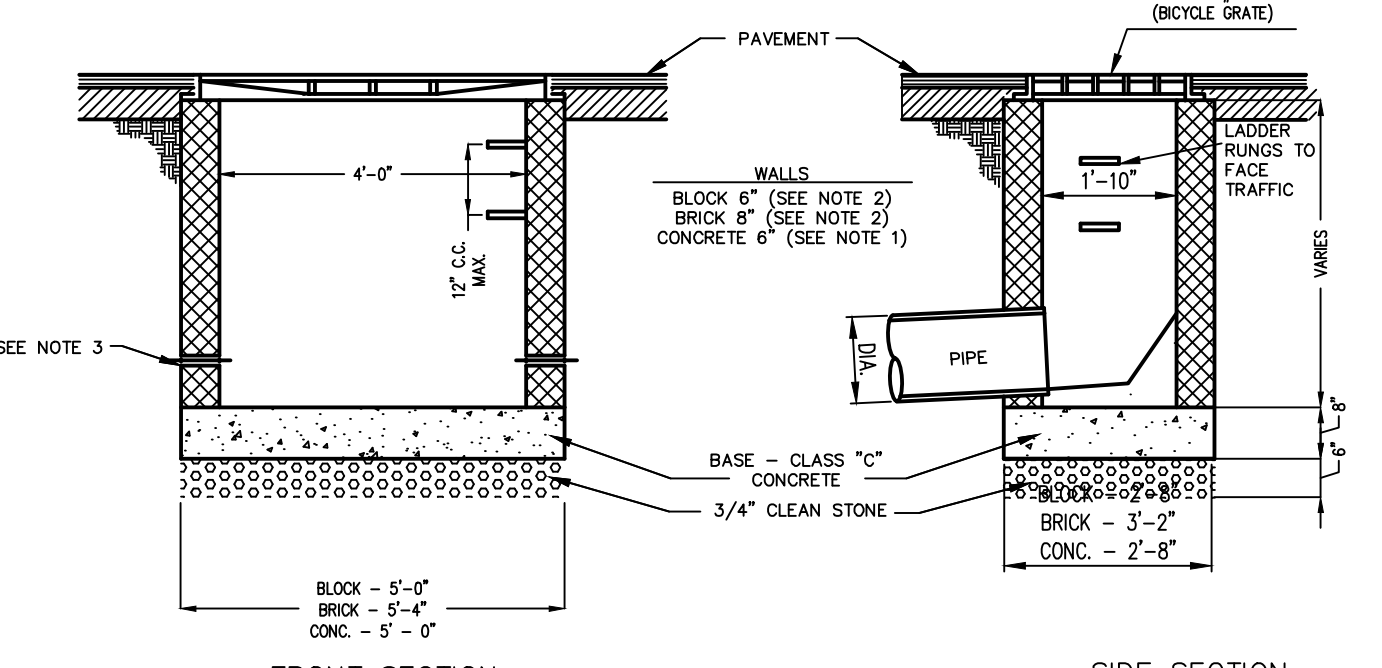
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 EMAIL: VCC@VCEA.ORG WEB: WWW.VCEA.ORG
 PHONE (908) 359-8591 FAX (908) 359-1560 NJ LLC CERT. No. 24GA28132300

STORM SEWER MISCELLANEOUS PROFILES
 FOR
 LOT 14.02 IN BLOCK 286
 SITUATED IN
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY



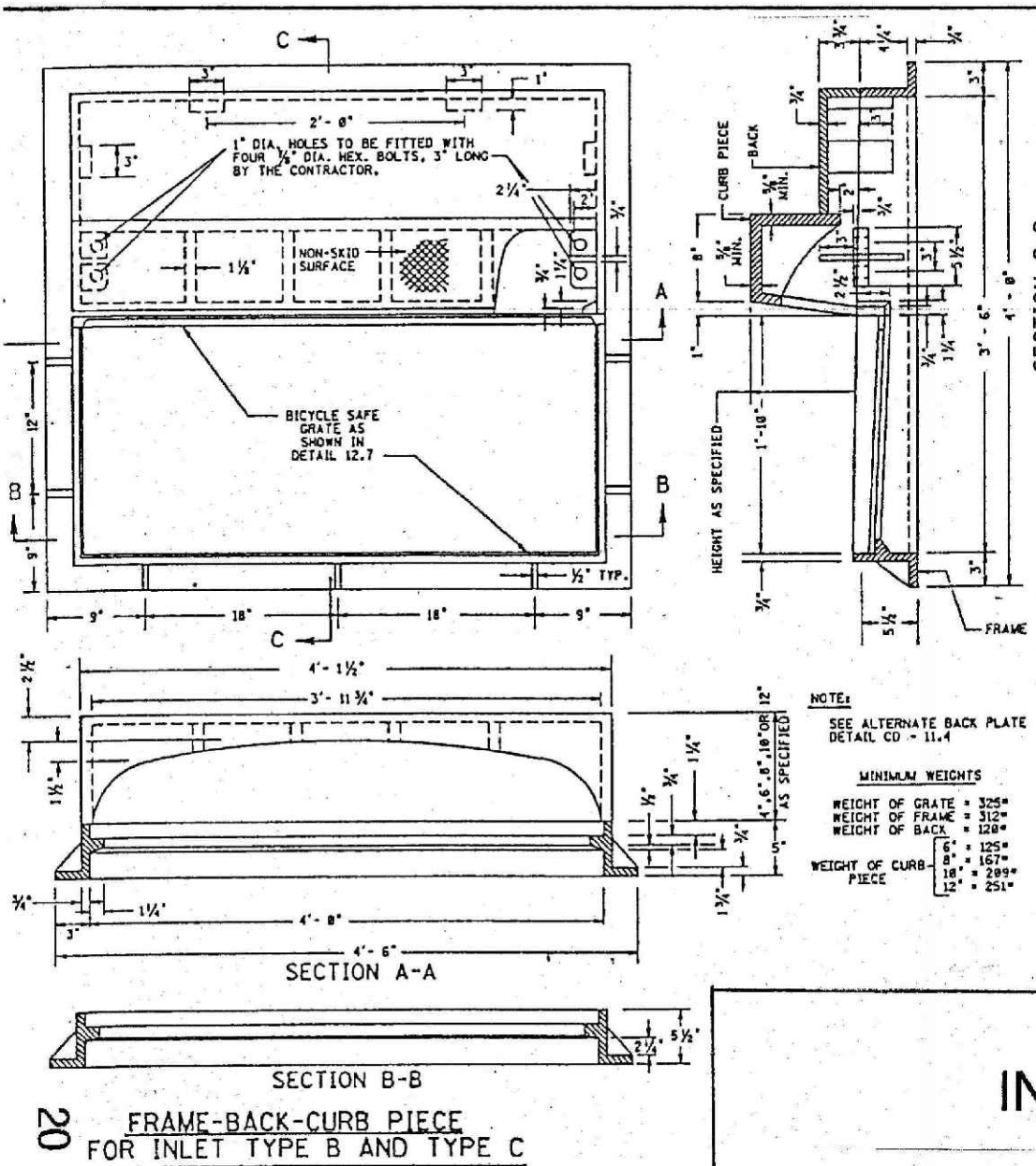
TYPE "E" INLET DETAIL
NOT TO SCALE



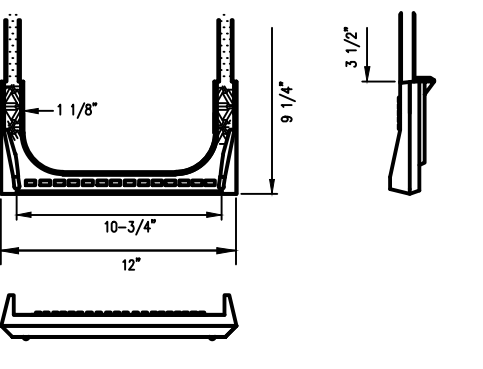
TYPE "A" INLET DETAIL
NOT TO SCALE

GENERAL NOTES:
 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FRANKLIN TOWNSHIP STANDARD DETAILS AND IF DISCREPANCIES EXIST BETWEEN THESE DETAILS SHOWN HEREON AND THE TOWNSHIP STANDARDS, THE TOWNSHIP STANDARD DETAILS SHALL PREVAIL.
 2. ALL UTILITY BACKFILL MATERIALS ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWNSHIP ENGINEER.
 3. ALL TRAFFIC CONTROL SIGNS MUST COMPLY WITH CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

METHOD OF SETTING CASTING FOR B TYPE INLETS WHERE CURB PIECE HEIGHT IS 2" GREATER THAN CURB FACE



INLET CASTING, TYPE B

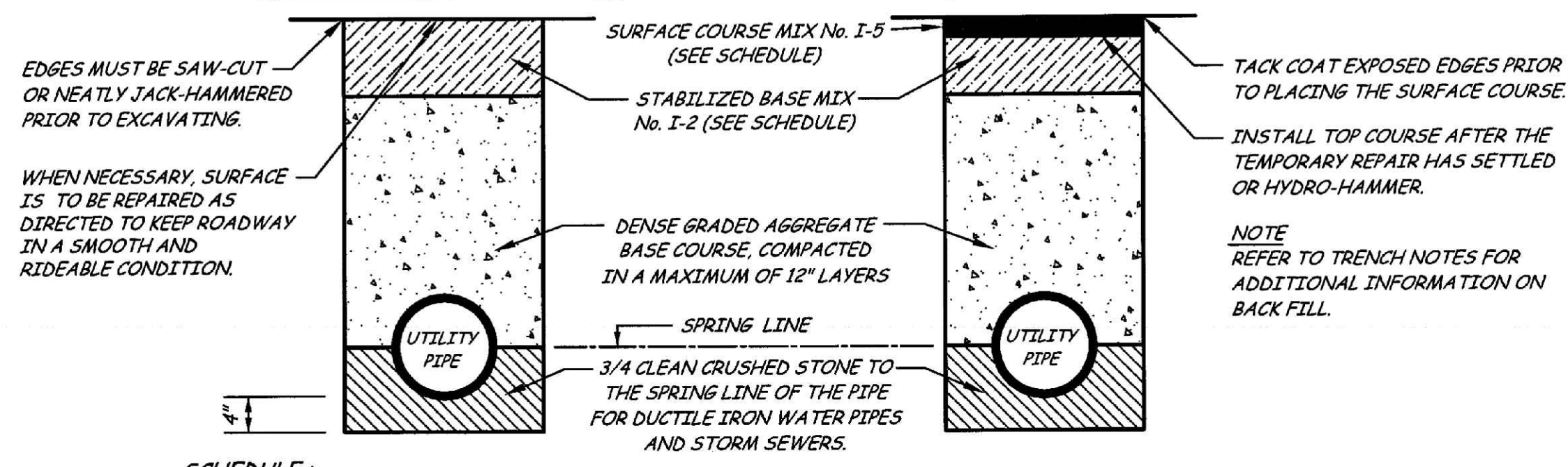


POLYPROPYLENE STORM MANHOLE STEP DETAIL
NOT TO SCALE

A TOWNSHIP ROAD OPENING PERMIT IS TO BE OBTAINED FROM THE FRANKLIN TOWNSHIP PUBLIC WORKS DEPARTMENT PRIOR TO THE INSTALLATION OF ANY UTILITY SERVICES. THE ROADWAY IS TO BE RESTORED IN ACCORDANCE WITH THE CONDITIONS OUTLINED IN THE PERMIT.

TEMPORARY REPAIR DETAIL

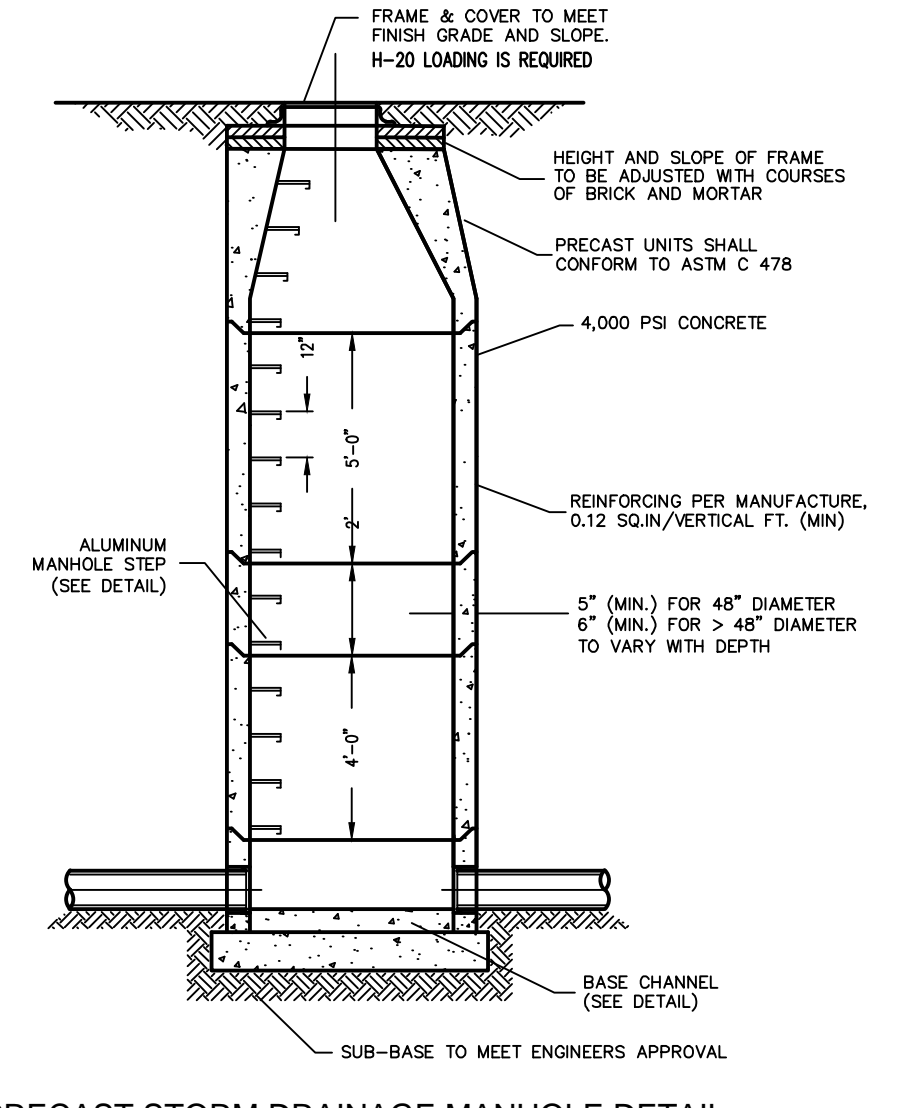
PERMANENT REPAIR DETAIL



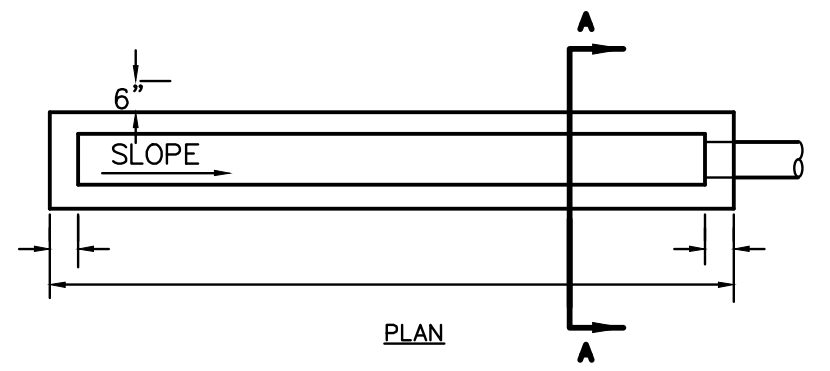
SCHEDULE:

ROAD CLASS	USUAL PAV'T WIDTH	R.O.W. WIDTH	STABILIZED BASE	SURFACE COURSE	USE
LOCAL RESIDENTIAL	30 FEET	50 FEET	4"	1 1/2"	
LOCAL NONRESIDENTIAL	40 FEET	60 FEET	6"	1 1/2"	
COLLECTOR, RESIDENTIAL	36 FEET	60 FEET	6"	2"	
COLLECTOR, NONRESIDENTIAL	42 FEET	66 FEET	7"	2"	
MAJOR COLLECTOR	48 FEET	72 FEET	7"	2"	
ARTERIAL	50 FEET	80 - 100 FEET	7"	2"	

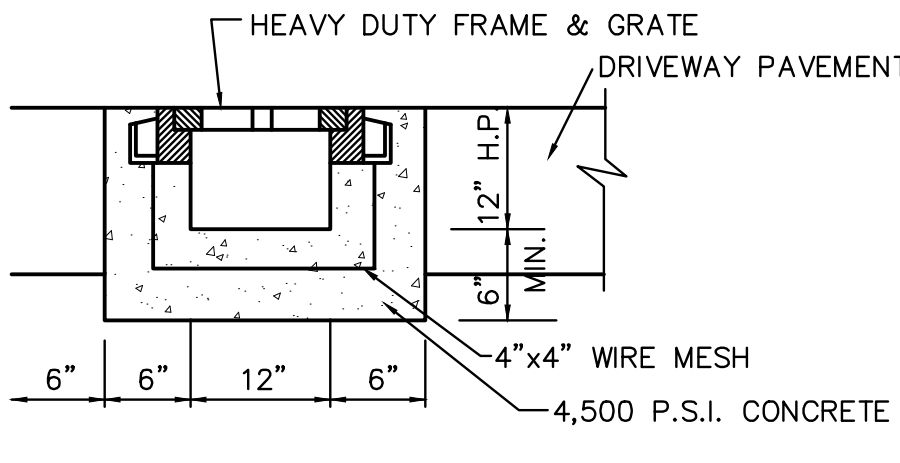
TOWNSHIP RESTORATION OF STREET OPENINGS DETAIL
N.T.S.



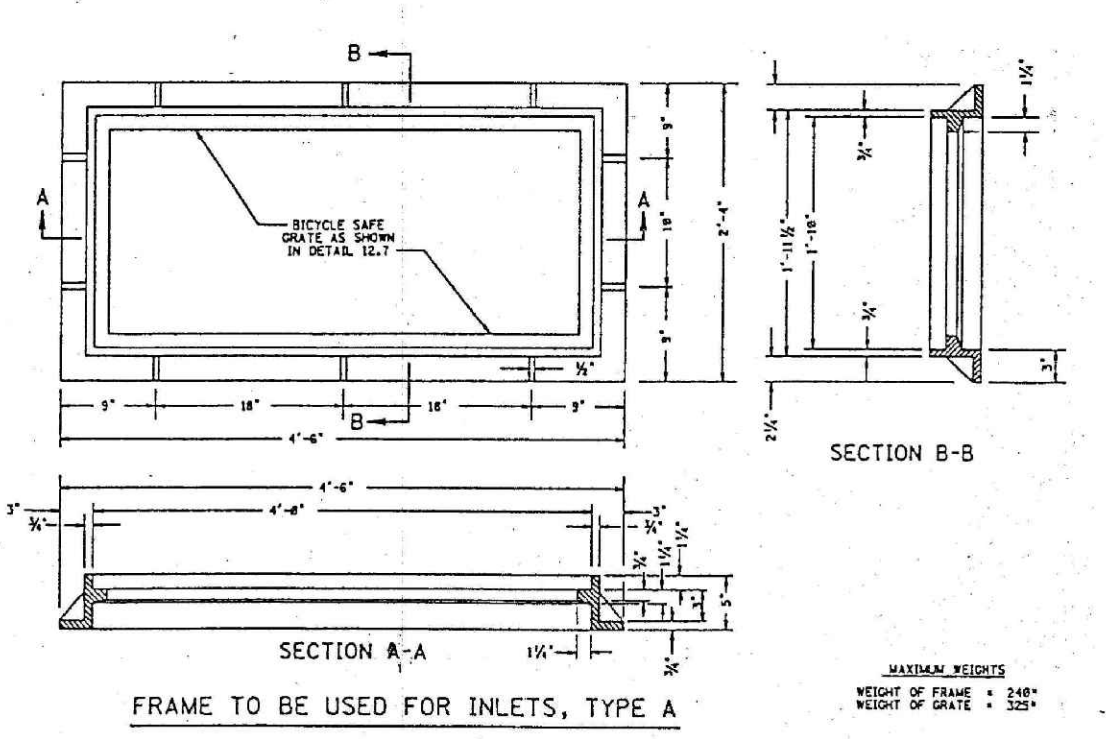
PRECAST STORM DRAINAGE MANHOLE DETAIL
NOT TO SCALE



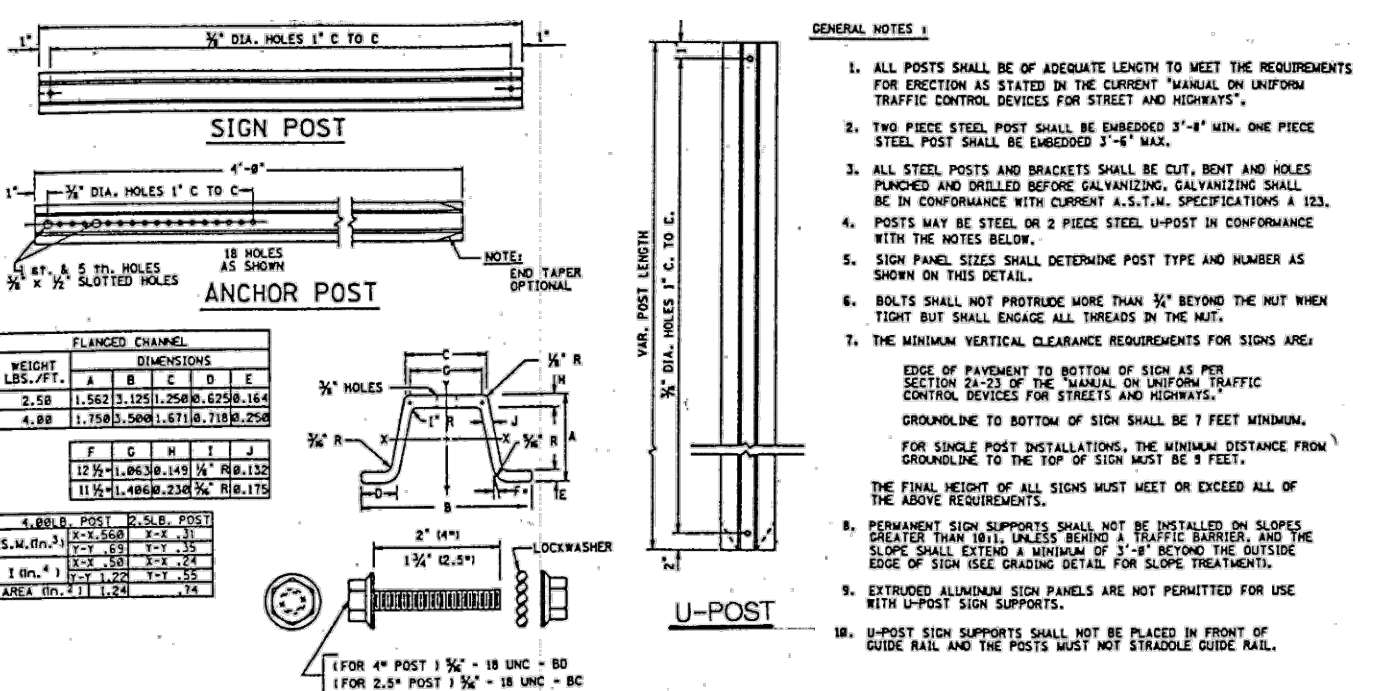
CAMPBELL FOUNDRY PATTERN No. 4526 HEAVY DUTY TRENCH GRATE & FRAME IN 4'-0" SECTIONS.



PAVEMENT TRENCH DRAIN DETAIL
NOT TO SCALE

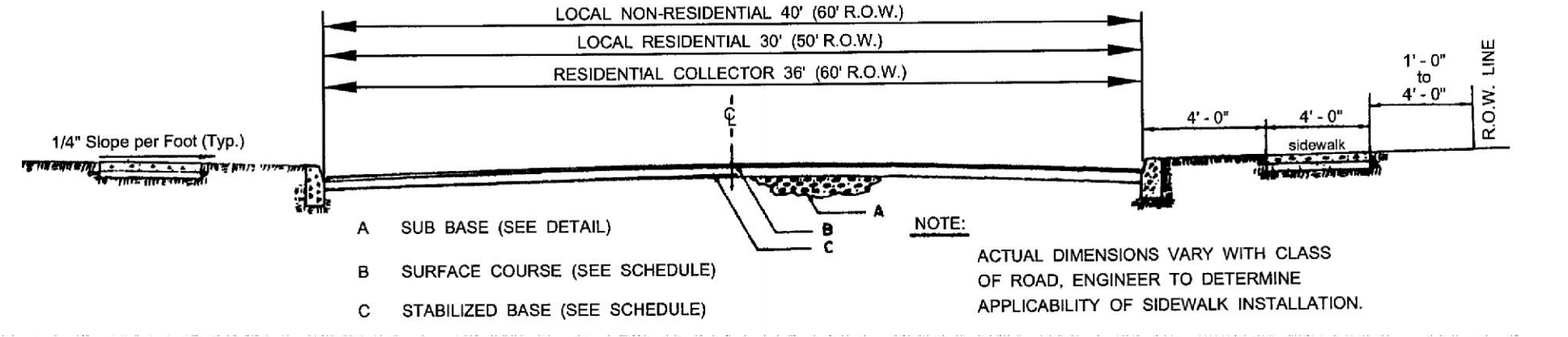


INLET CASTING, TYPES E & A



SIGN POSTS

SIGN POST DETAIL
N.T.S.



TOWNSHIP ROADWAY TYPICAL SECTION
N.T.S.

ROAD SPECIFICATION & THICKNESS SCHEDULE

ROAD CLASS	SUB-BASE (D.G.A.B.C.)	STABILIZED BASE Mix No. 1-2	SURFACE COURSE Mix No. 1-5 (NJDOT spec.)
Arterial	6"	7" or more	2"
Major Collector	6"	7" or more	2"
Collector, Non-Residential	6"	7" or more	2"
Collector, Residential	6"	6" or more	2"
Local, Non-Residential	6"	6" or more	1 1/2"
Local, Residential	4"	4" or more	1 1/2"

DATE:	DECEMBER 15, 2017
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DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
DATE:	3/24/22
DATE:	7/30/21
DATE:	15-09-FS

BY: *Michael K. Ford*
 Michael K. Ford
 New Jersey Professional Engineer
 No. 34722

Van Cleef
 ENGINEERING ASSOCIATES

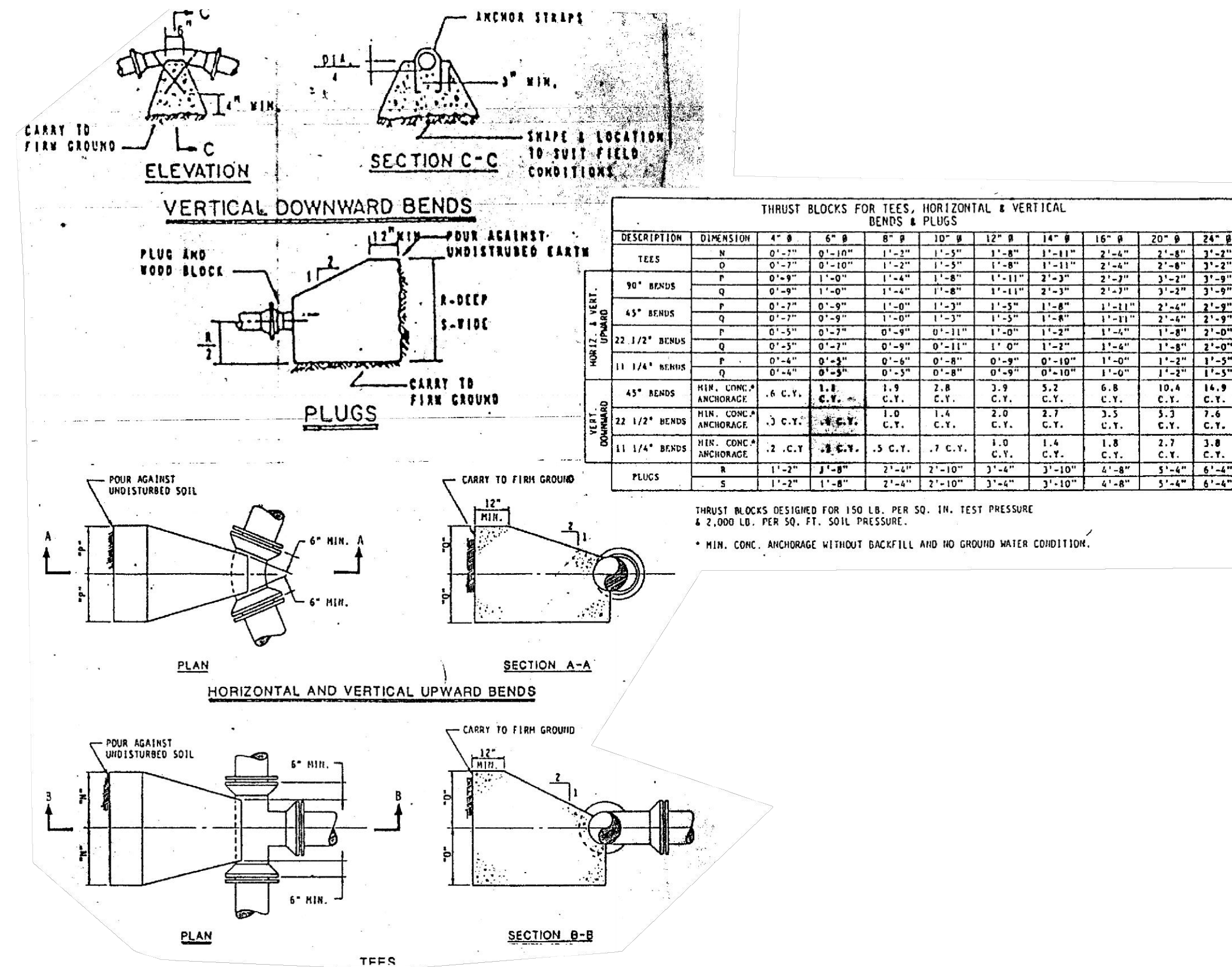
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32 BROWER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
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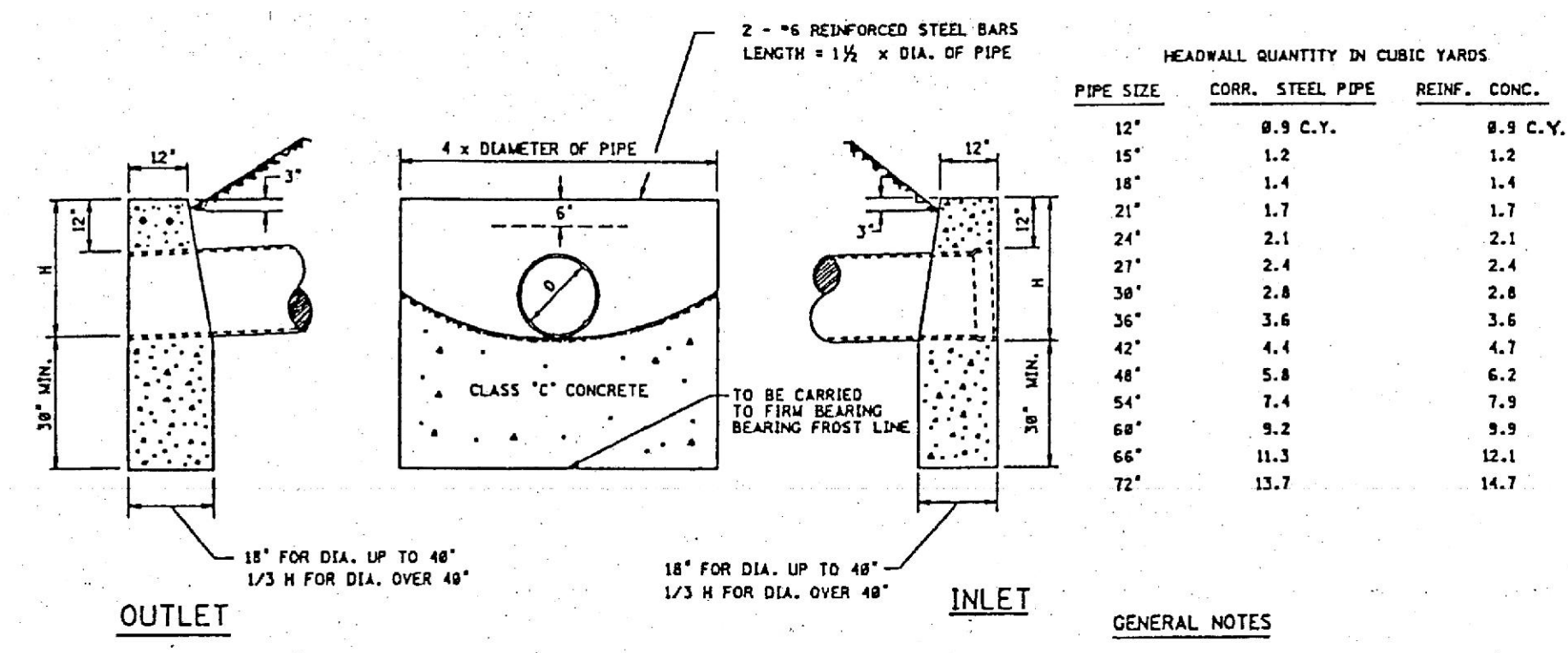
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NJ LIC. CERT. NO. 24G28123200

CONSTRUCTION DETAILS
 FOR
 LOT 14.02 IN BLOCK 286
 SITUATED IN
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY



TOWNSHIP THRUST BLOCK DETAIL
N.T.S.



TOWNSHIP CONCRETE HEADWALL DETAIL
N.T.S.

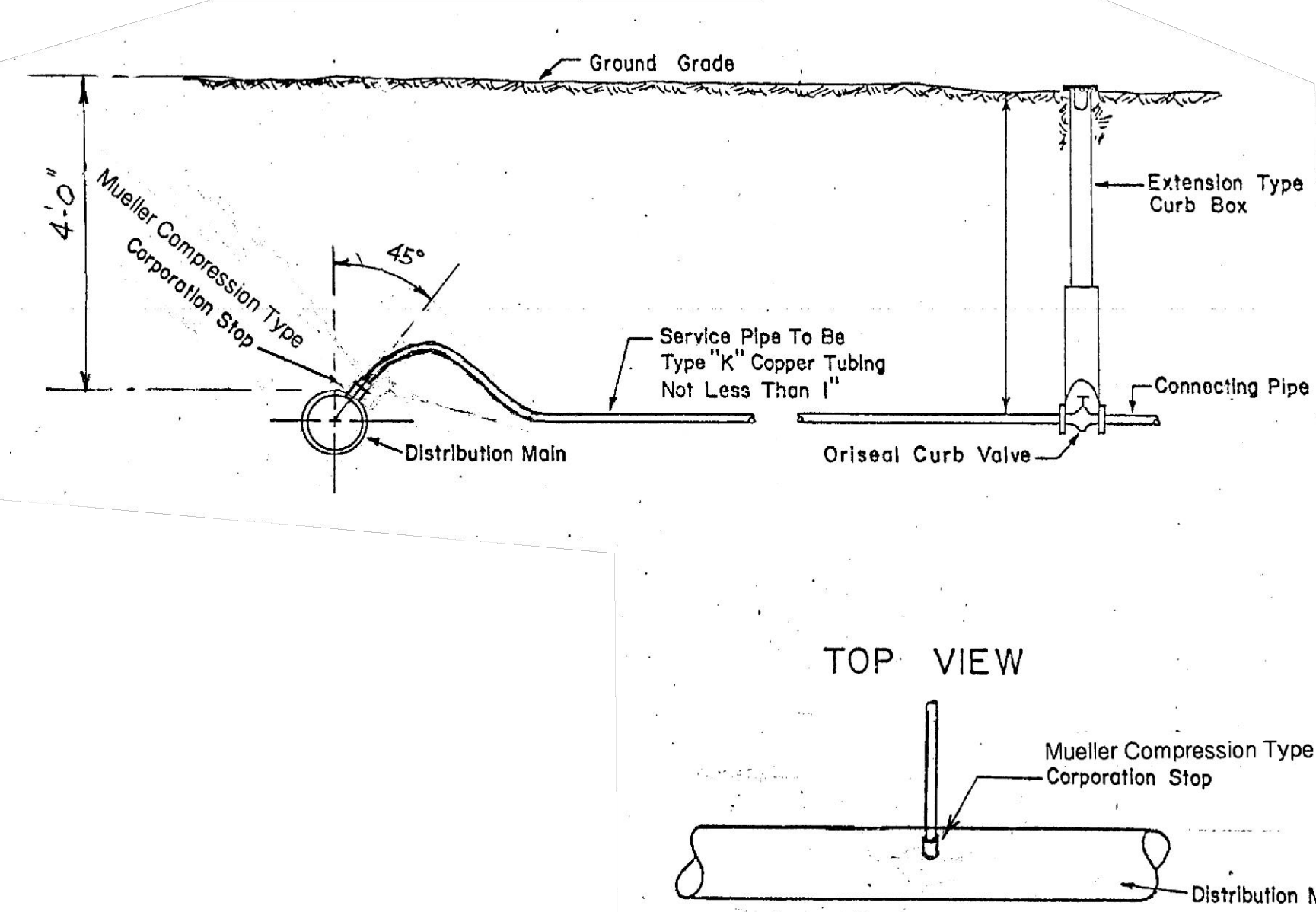
- GENERAL NOTES**
1. THE RUBBING OF HEADWALLS TO REMOVE FORM MARKS AS REQUIRED IN SUBSECTION 801.14 FOR CONCRETE STRUCTURE WILL NOT BE REQUIRED FOR HEADWALLS AT THE BOTTOM OF EMBANKMENT IN RURAL AREAS.
 2. ALL EDGES TO BE CHAMFERED 1".
 3. FOR ARCH PIPE USE LENGTH OF HEADWALL AS 3H + SPAN.
 4. FOR MORE THAN ONE PIPE, SET THE PIPE A MINIMUM OF ONE FOOT APART OUTSIDE BARREL. TO OUTSIDE BARRELS, THE ENDS OF THE HEADWALL SHALL BE SET 20 OFF THE C OF THE CONTROLLING PIPE.

RESTRAINING LENGTH SCHEDULE
MINIMUM LENGTH OF RESTRAINED JOINTS ON EACH SIDE OF FITTING

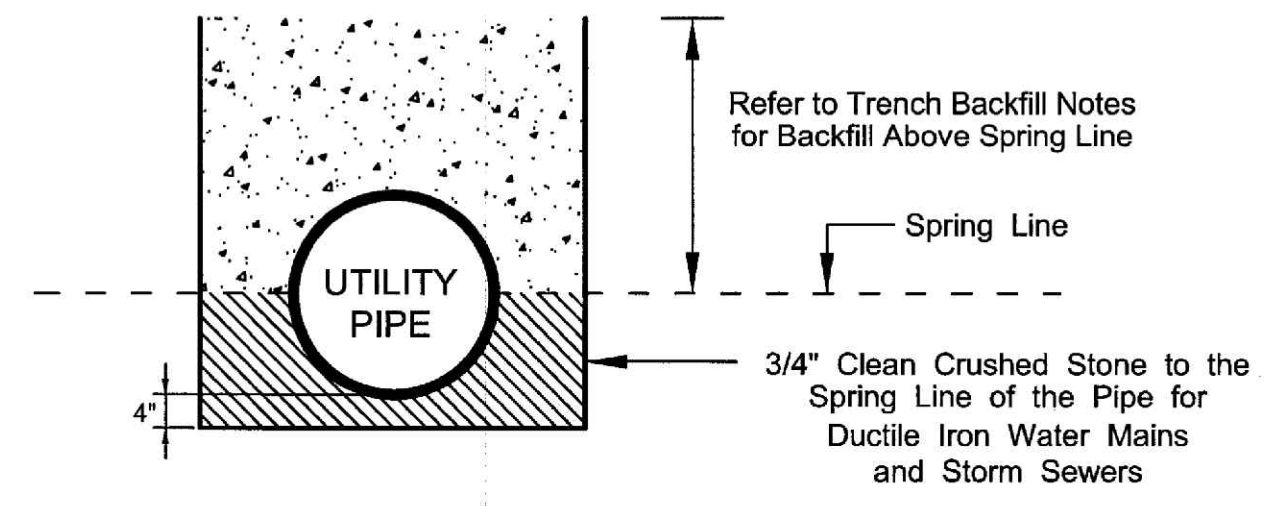
FITTING	DUCTILE IRON PIPE (FT.)						CONCRETE LCP (FT.)
	90	120	145	190	270	230	
90° BEND, VALVES, CAPS AND PLUGS	NA	90	120	145	190	270	230
45° BENDS	NA	30	35	45	60	80	70
22 1/2° BENDS	NA	10	10	15	15	25	20
11 1/4° BENDS	NA	5	5	5	5	5	5
5 5/8° BENDS	NA	NA	NA	NA	5	5	5
TEES	6" Ø	8" Ø	12" Ø	16" Ø	24" Ø	42" Ø	42" Ø

NOTE: CONTRACTOR SHALL USE THE ABOVE SCHEDULE AND THE CONTRACT PLAN AND PROFILE SHEETS TO DETERMINE ACTUAL RESTRAINED LENGTHS REQUIRED. FITTINGS IN CLOSE PROXIMITY TO ONE ANOTHER MAY REQUIRE ADDITIONAL RESTRAINT. FOR EXAMPLE TWO 22 1/2° BENDS LOCATED WITHIN SEVERAL FEET OF EACH OTHER WILL HAVE THE SAME REACTION AS A 45° BEND AND AS SUCH WILL REQUIRE THE LENGTHS OF RESTRAINT SHOWN FOR 45° BENDS.

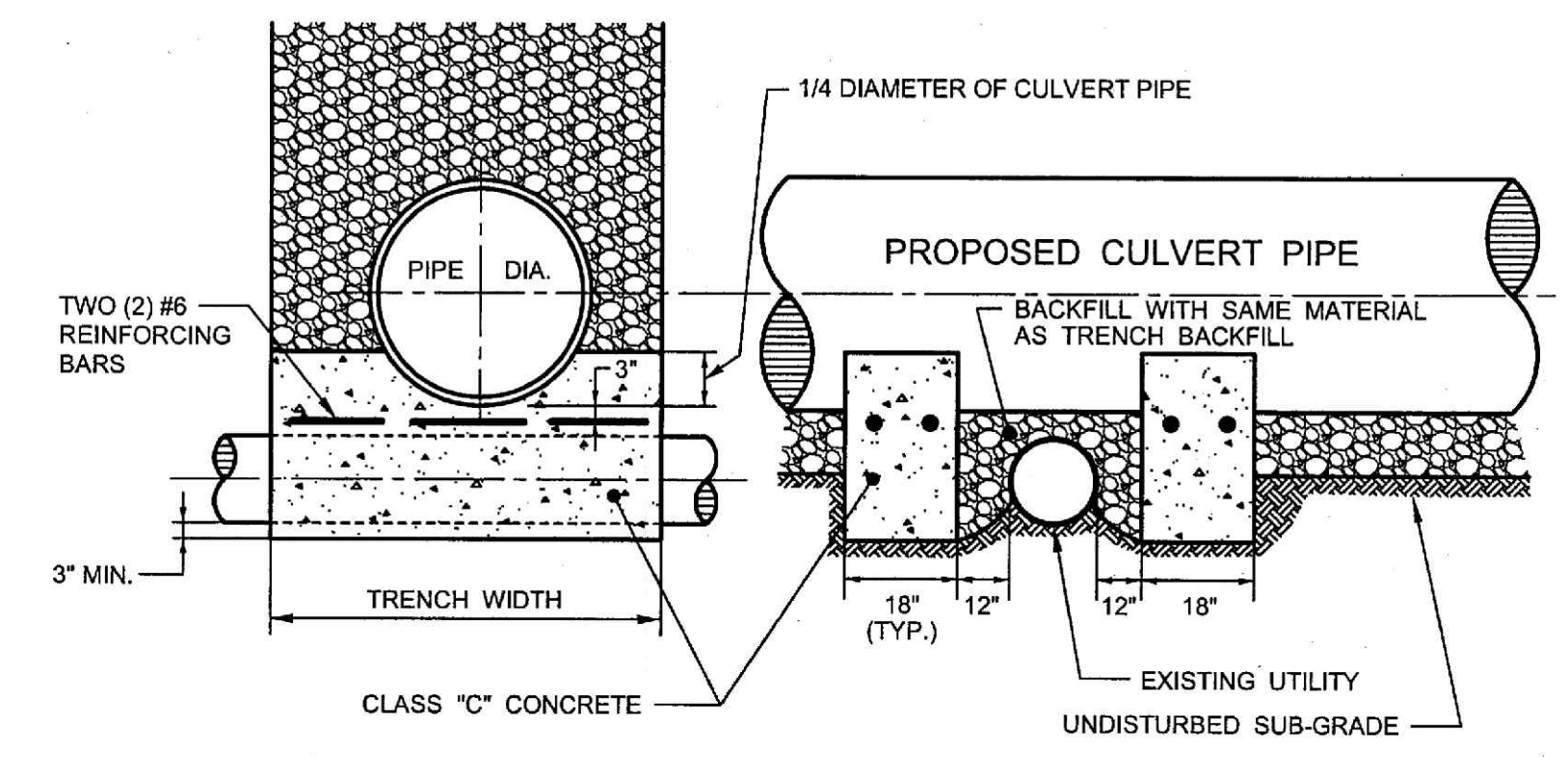
TOWNSHIP RESTRAINING LENGTH SCHEDULE
N.T.S.



TOWNSHIP HOUSE SERVICE CONNECTION DETAIL
N.T.S.



TOWNSHIP UTILITY PIPE BEDDING DETAIL
N.T.S.



TOWNSHIP CONCRETE PIPE CRADLES DETAIL
N.T.S.

FIRE LANE SIGNS

Signs shall be rectangular shape with red letters and border on a white background, and shall be a minimum of twelve (12) inches by eighteen (18) inches with the longer dimension vertical. Signs shall be made of metal or comparable durable material, and all corners shall be rounded. Signs shall be reflectorized. The message on signs shall read "NO PARKING FIRE LANE".

There shall be a sufficient number of signs for each fire lane to face all directions of traffic flow into and within said areas, and so as not to exceed a maximum distance of one-hundred (100) feet between signs facing the same direction of traffic flow. Signs shall be mounted at right angles to the direction of and facing the traffic flow. Signs shall be installed so that the bottom of each sign is five (5) feet above the pavement. The bottom of the sign may be seven (7) feet above the pavement where subject to pedestrian traffic at that location.

Signs shall be kept in good condition and clearly legible at all times. Damaged, destroyed or missing signs shall be promptly replaced.



TOWNSHIP NO PARKING FIRE LANE SIGN DETAIL
N.T.S.

DATE:	DECEMBER 15, 2017
SCALE:	AS SHOWN
DESIGNED BY:	M.R.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
REVISIONS	AUTH. DATE JOB No. 15-09-FS

BY: *Michael K. Ford*
Michael K. Ford
New Jersey Professional Engineer
No. 34722

Van Cleef
ENGINEERING ASSOCIATES

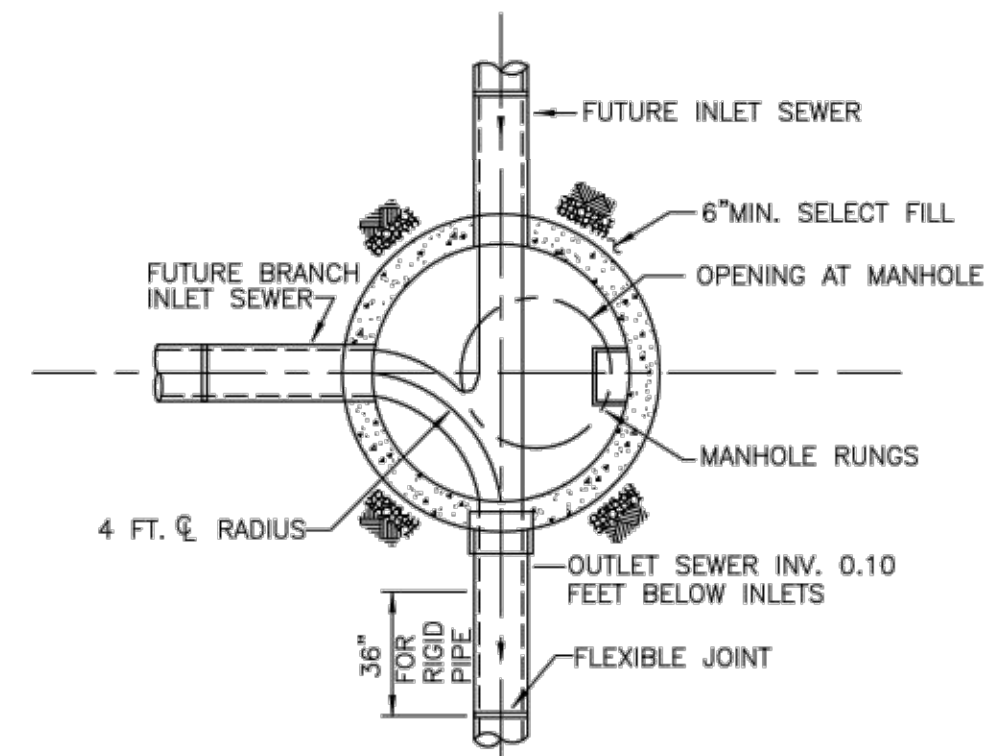
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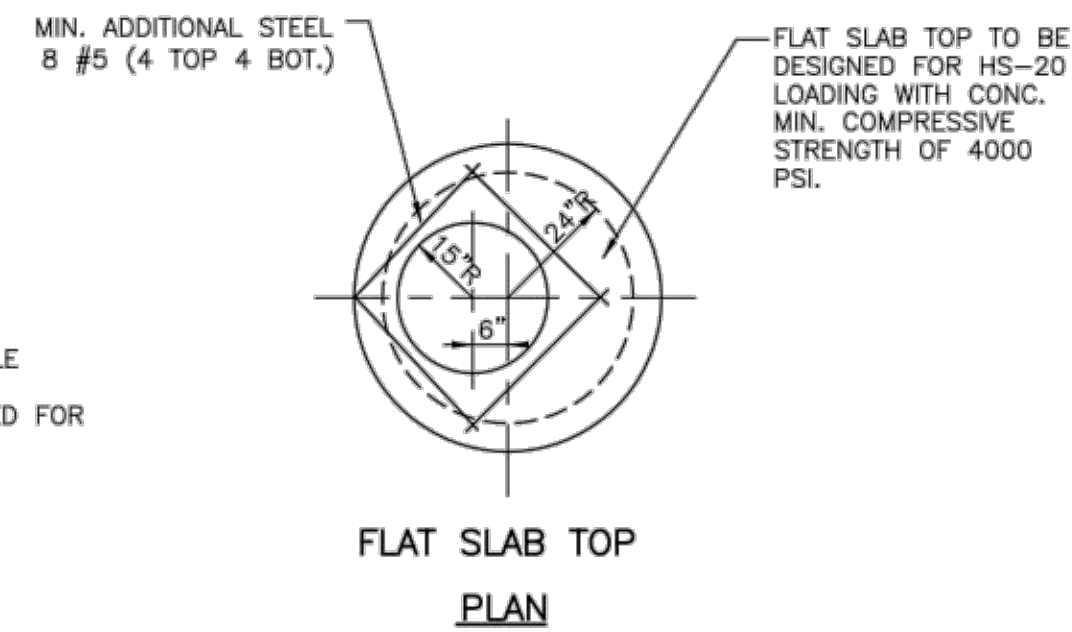
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NJ LLC CERT. No. 24GA2812300

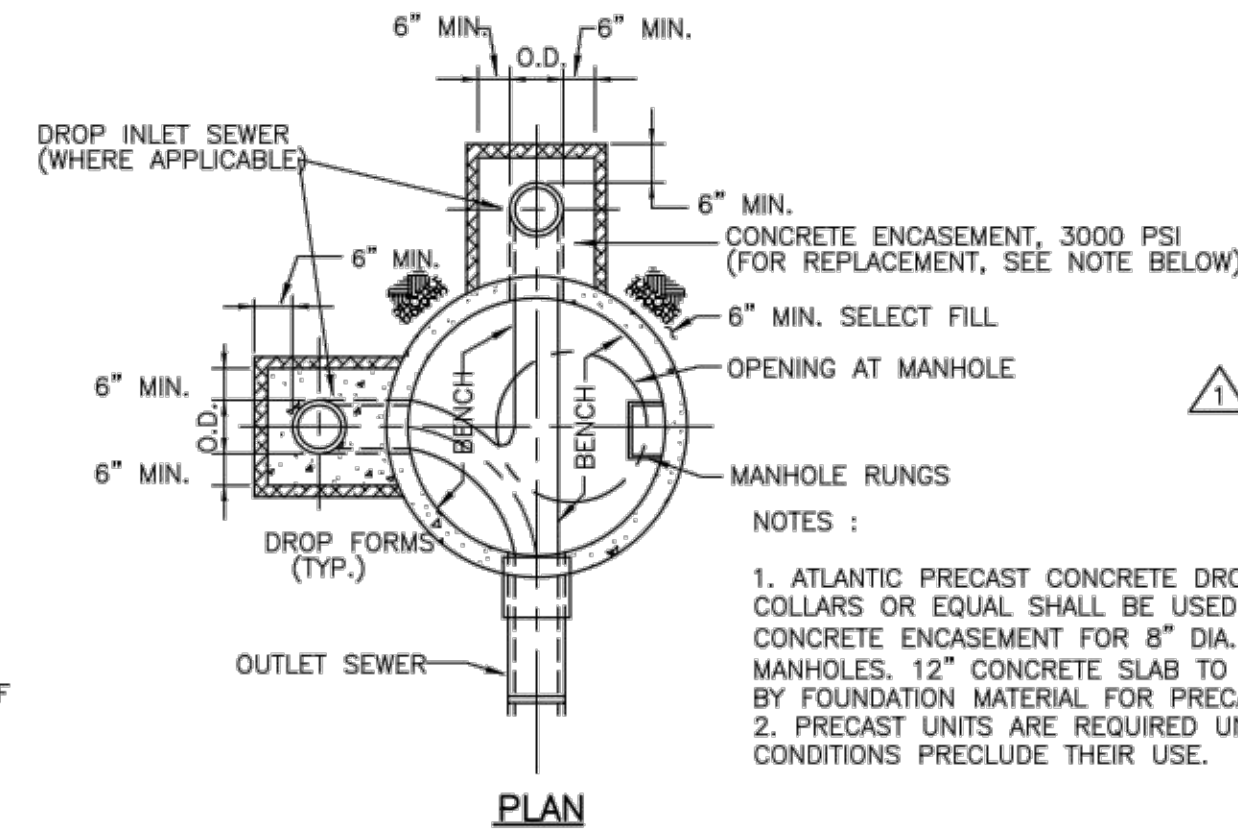
CONSTRUCTION DETAILS
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



NOTES:
 1. USE STANDARD AUTHORITY MANHOLE FRAME AND COVER.
 2. SPECIAL DETAILS WILL BE PROVIDED FOR SEWERS 27" AND LARGER

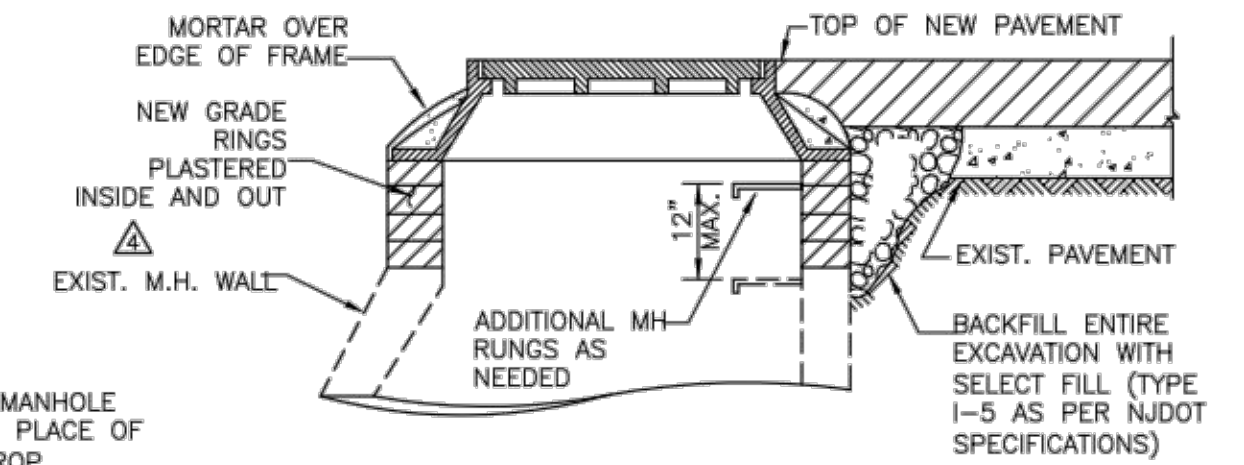


FLAT SLAB TOP
PLAN



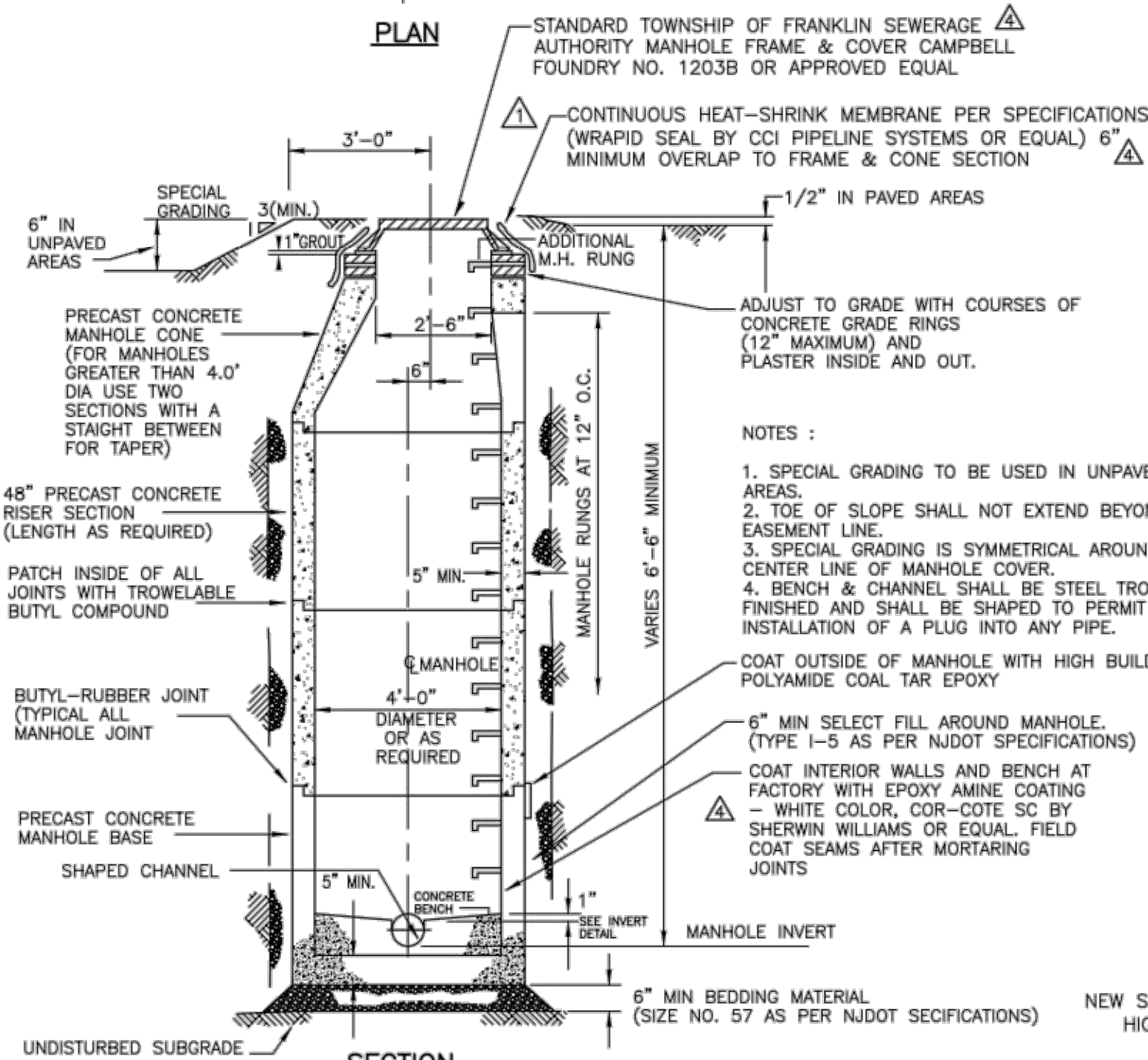
NOTES:
 1. ATLANTIC PRECAST CONCRETE DROP MANHOLE COLLARS OR EQUAL SHALL BE USED IN PLACE OF CONCRETE ENCASUREMENT FOR 8" DIA. DROP MANHOLES. 12" CONCRETE SLAB TO BE REPLACED BY FOUNDATION MATERIAL FOR PRECAST UNITS.
 2. PRECAST UNITS ARE REQUIRED UNLESS JOB CONDITIONS PRECLUDE THEIR USE.

PLAN



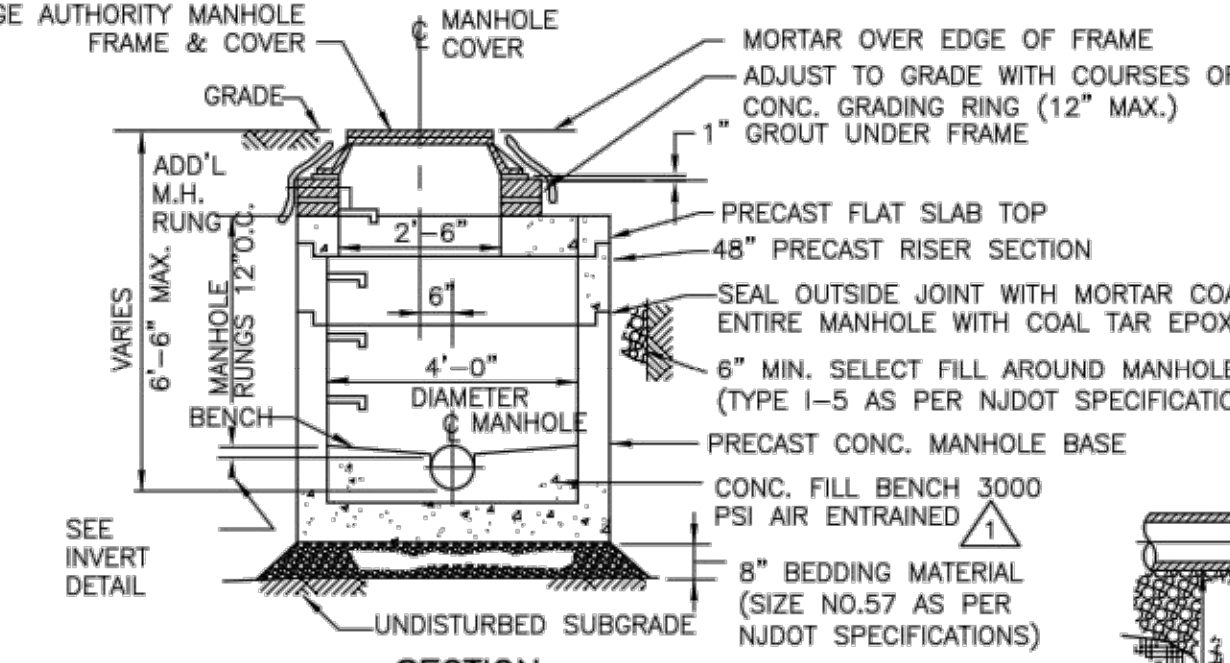
RAISING FRAME ON EXISTING MANHOLE

DETAIL D
N.T.S.



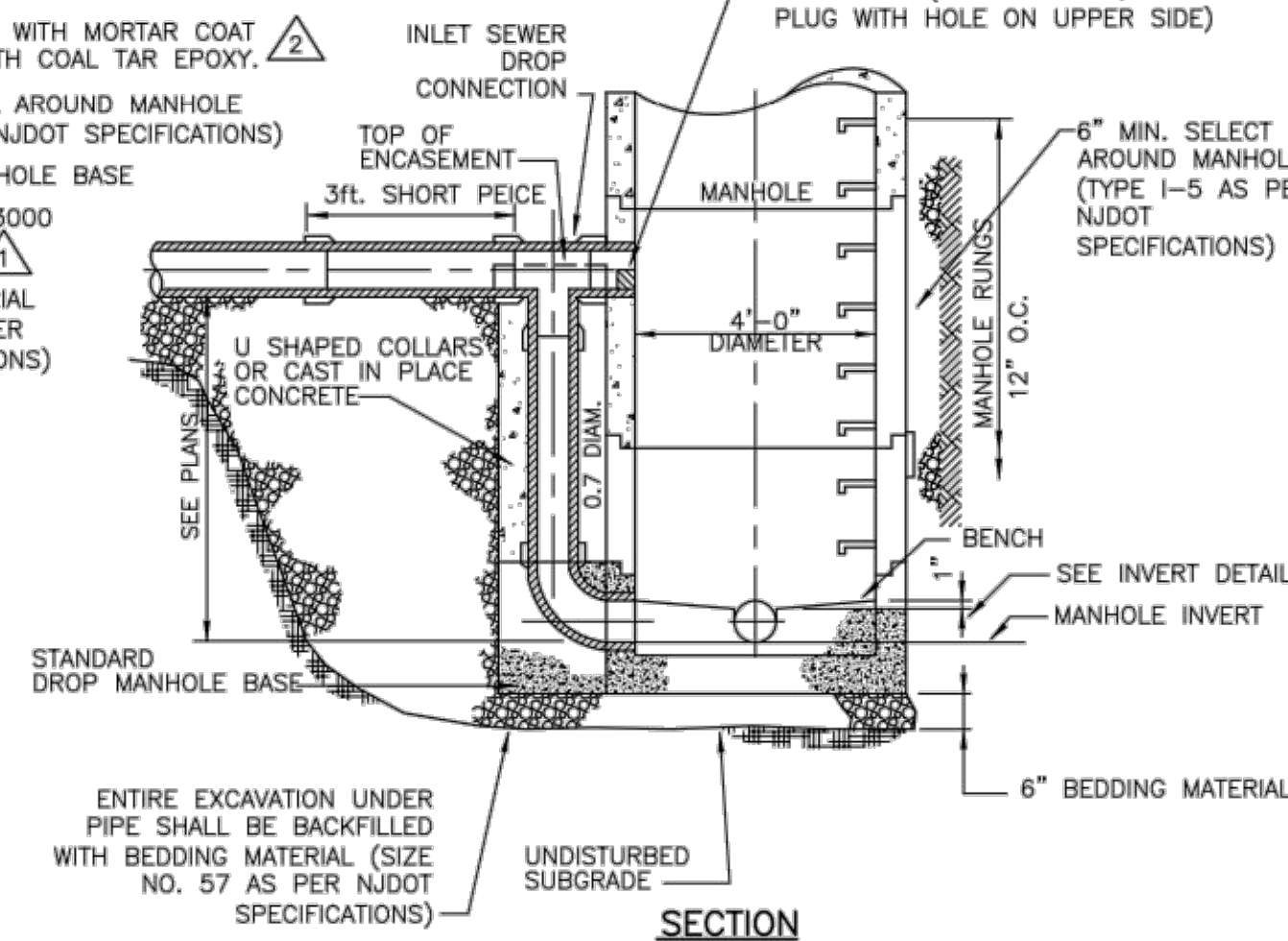
SECTION
STANDARD MANHOLE
DETAIL A
N.T.S.

NOTES:
 1. SPECIAL GRADING TO BE USED IN UNPAVED AREAS.
 2. TOE OF SLOPE SHALL NOT EXTEND BEYOND EASEMENT LINE.
 3. SPECIAL GRADING IS SYMMETRICAL AROUND CENTER LINE OF MANHOLE COVER.
 4. BENCH & CHANNEL SHALL BE STEEL TROWEL FINISHED AND SHALL BE SHAPED TO PERMIT EASY INSTALLATION OF A PLUG INTO ANY PIPE.
 5. COAT OUTSIDE OF MANHOLE WITH HIGH BUILD POLYAMIDE COAL TAR EPOXY.
 6. 6" MIN SELECT FILL AROUND MANHOLE (TYPE 1-5 AS PER NJDOT SPECIFICATIONS).
 7. COAT INTERIOR WALLS AND BENCH AT FACTORY WITH EPOXY AMINE COATING - WHITE COLOR, COR-COTE SC BY SHERWIN WILLIAMS OR EQUAL. FIELD COAT SEAMS AFTER MORTARING JOINTS.

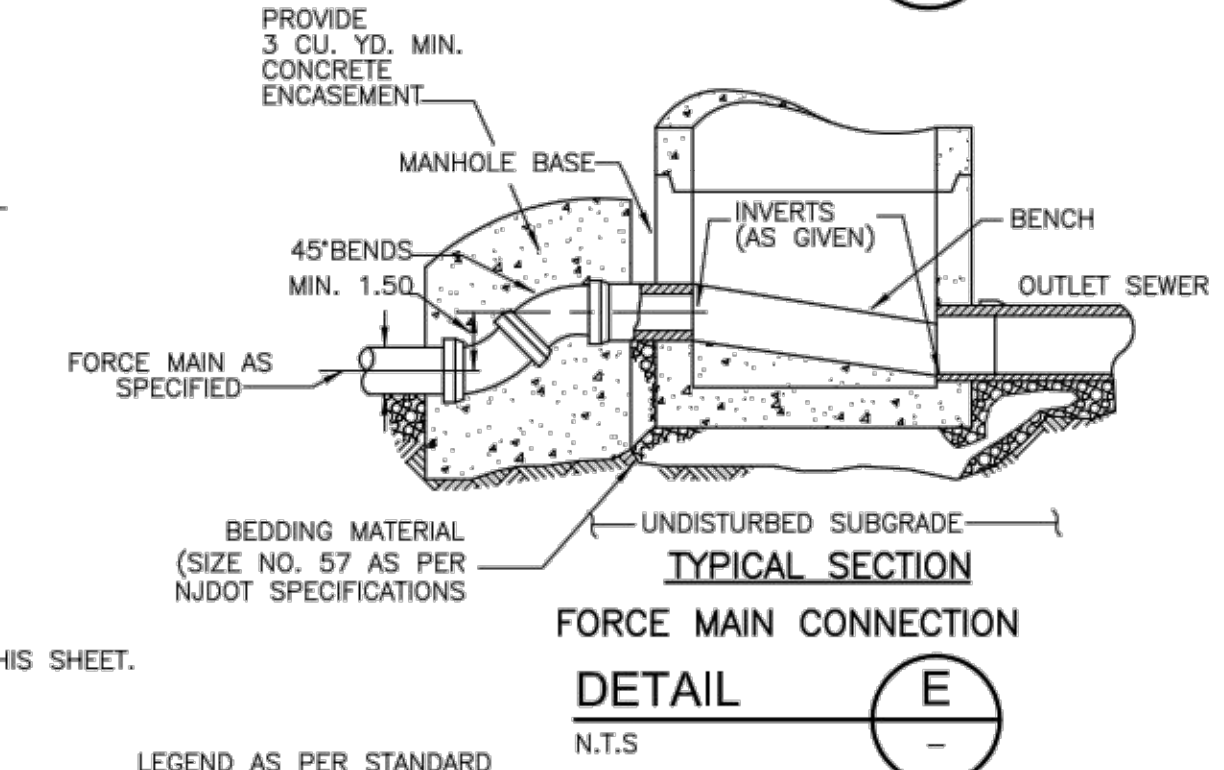


SECTION
SHALLOW MANHOLE
DETAIL B
N.T.S.

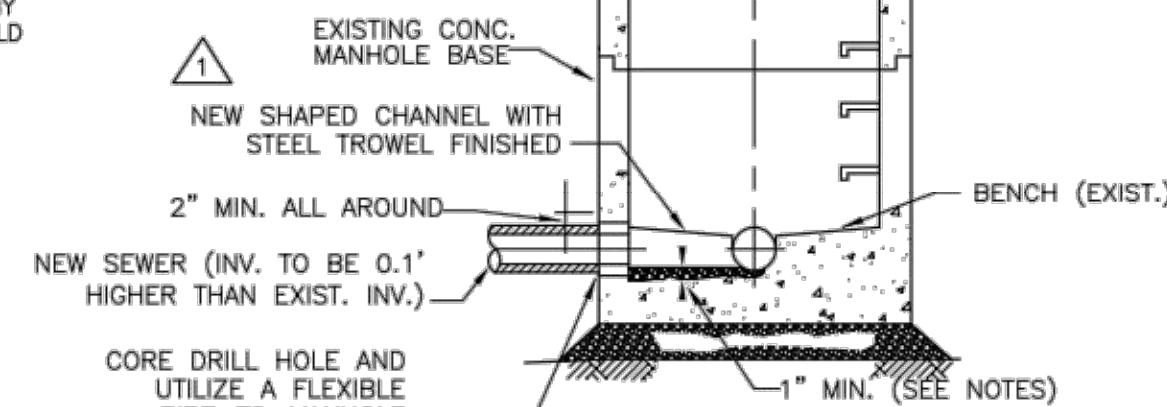
NOTE:
 1. FOR INLET, OUTLET, BASE AND BRANCH DETAILS SEE INVERT DETAILS.
 2. INTERIOR COATING AND CONTINUOUS HEAT-SHRINK MEMBRANE SHALL BE AS INDICATED ON STANDARD MANHOLE DETAIL A THIS SHEET.



SECTION
DROP MANHOLE
DETAIL C
N.T.S.

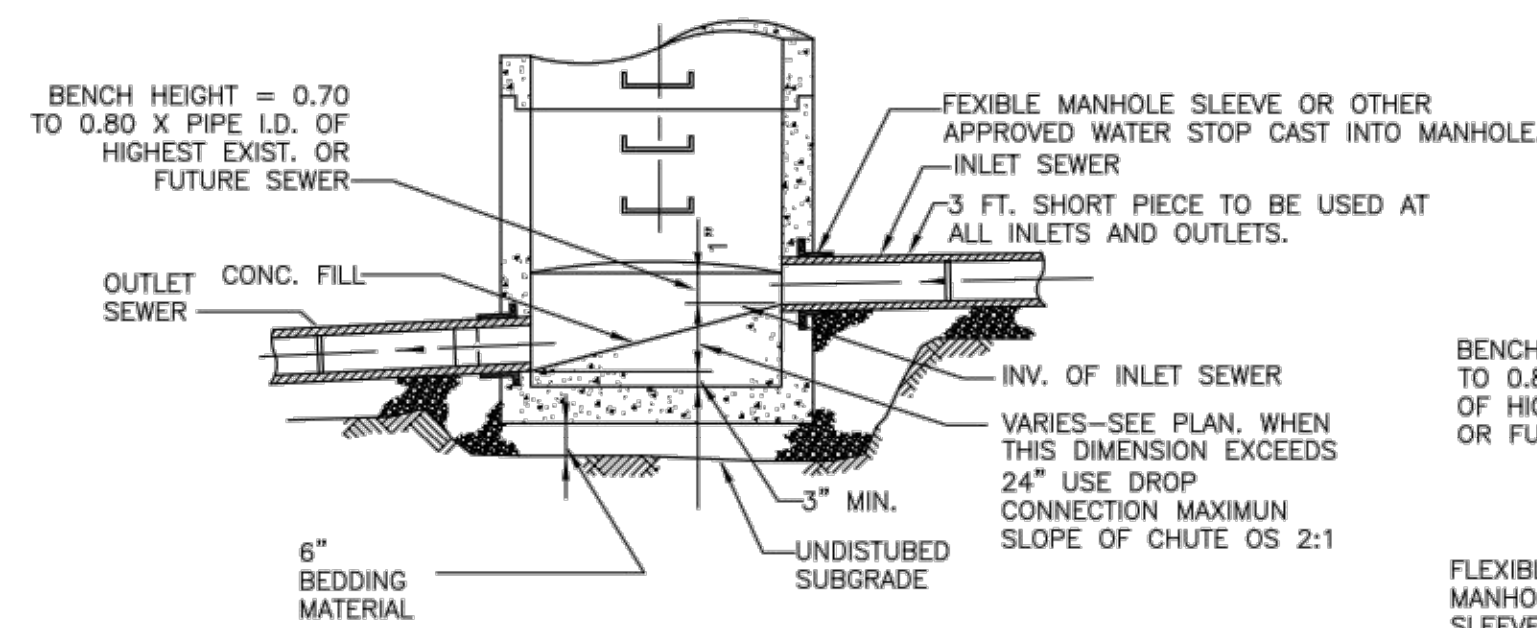


SECTION
FORCE MAIN CONNECTION
DETAIL E
N.T.S.



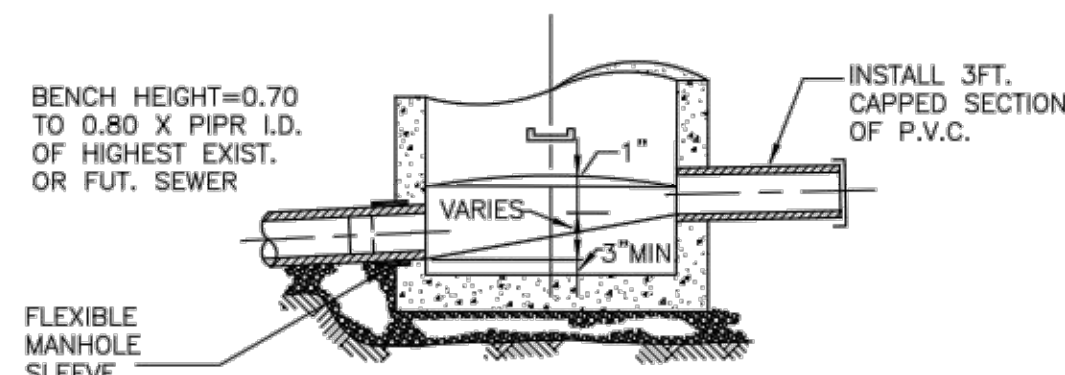
SECTION
NEW CONNECTION TO EXISTING MANHOLE
DETAIL H
N.T.S.

1. CLEAN AND ROUGHEN ALL SURFACES AGAINST WHICH NEW MORTAR IS TO BE PLACED.
 2. WHERE REQUIRED, EXISTING CONCRETE SHALL BE REMOVED TO A LINE 1" BEYOND THE NEW CHANNEL LINE AND FINISHED OFF WITH NEW CEMENT MORTAR.



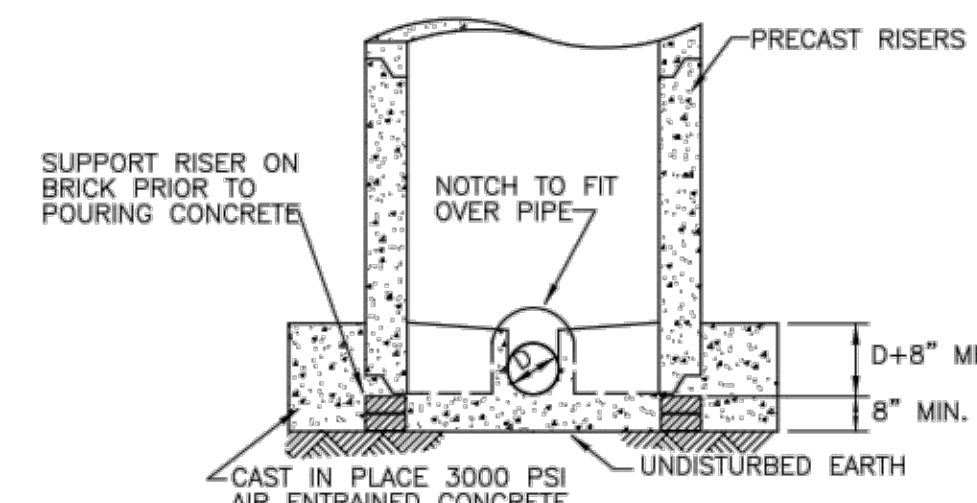
INVERT
DETAIL G
N.T.S.

NOTES:
 1. CHANNEL WIDTH TO BE BETWEEN 1.0 AND 1.10 X PIPE DIAMETER.
 2. BENCH AND CHANNEL SHALL HAVE A STEEL TROWEL FINISH.



SECTION
FUTURE EXTENSION
DETAIL K
N.T.S.

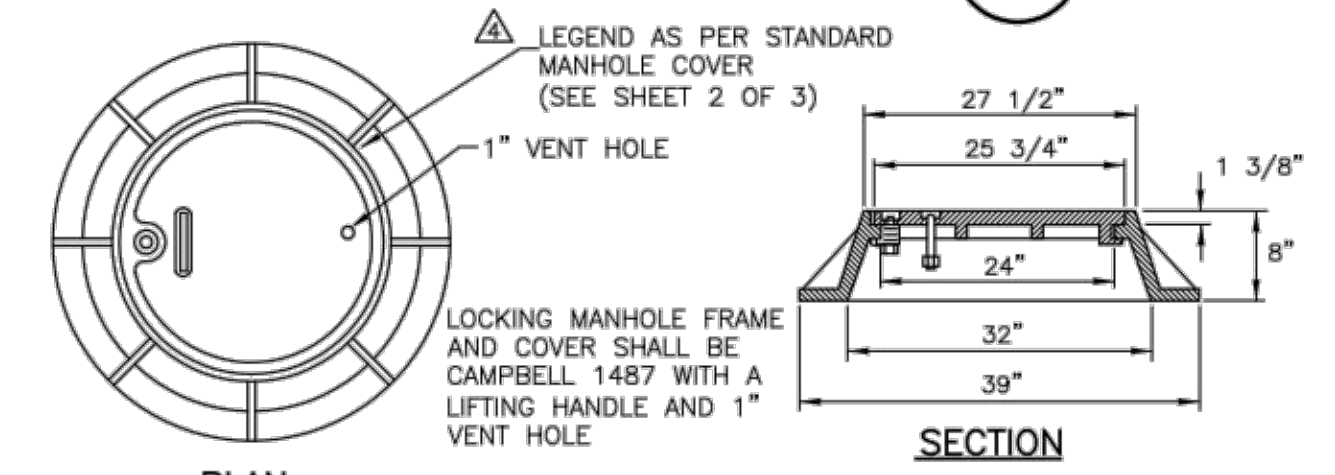
NOTE:
 BENCH SHALL BE PROVIDED EVEN IF EXTENSION IS NOT REQUIRED.



SECTION
DOG HOUSE MANHOLE
DETAIL I
N.T.S.

(FOR INSTALLING NEW MANHOLE ON ACTIVE SEWER)

NOTES:
 1. TOP OF PIPE SHALL BE NEATLY CUT AFTER CAST-IN-PLACE CONC. BASE AND BENCH HAS SET.
 2. FOR DETAIL OF UPPER PART OF MANHOLE, SEE "STANDARD MANHOLE" DETAIL.
 3. ACRYLIMIDE GEL GROUT INJECTION SHALL BE USED TO STOP LEAKS, IF ANY, AROUND MANHOLE SEAMS AND PIPES.
 4. FTSA APPROVAL SHALL BE REQUIRED PRIOR TO INSTALLATION OF ANY DOG HOUSE MANHOLE.
 5. INTERIOR COATING AND CONTINUOUS HEAT-SHRINK MEMBRANE SHALL BE AS INDICATED ON STANDARD MANHOLE DETAIL A THIS SHEET.

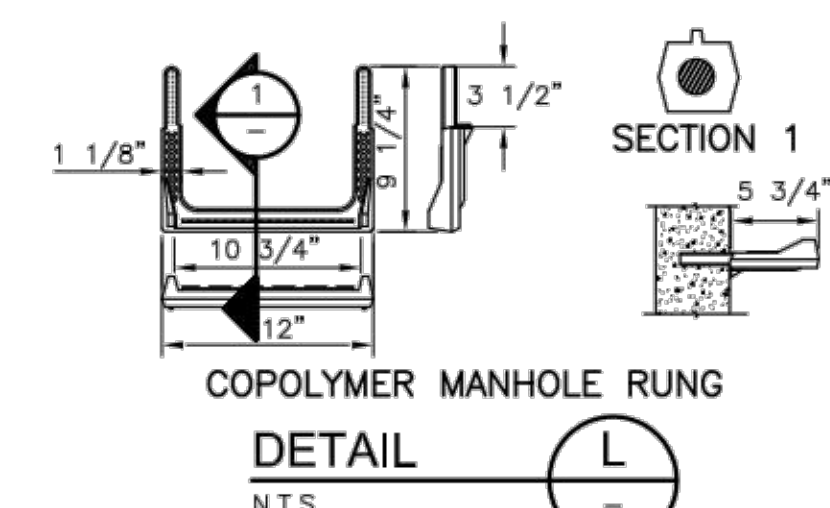


PLAN
SECTION
WATERTIGHT MANHOLE FRAME AND COVER
DETAIL F
N.T.S.



PLAN
SECTION
LOCKING MANHOLE FRAME AND COVER
DETAIL J
N.T.S.

NOTE: SHALL BE USED WHERE SPECIFIED ON PLANS IN REMOTE EASEMENTS NOT SUBJECT TO FLOODING



SECTION 1
DETAIL L
N.T.S.

PLAN REFERENCE:
 FRANKLIN TOWNSHIP SEWERAGE AUTHORITY, SOMERSET COUNTY STANDARD DETAILS, SHEET I, DATED OCTOBER 2013.

DATE:	DECEMBER 15, 2017
SCALE:	AS SHOWN
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
REVISIONS	AUTH. DATE JOB No. 15-09-FS

Van Cleef
 ENGINEERING ASSOCIATES

Consulting Civil Engineering
 Environmental Engineering
 Municipal Engineering
 Land Surveying
 Professional Planning
 Landscape Architecture

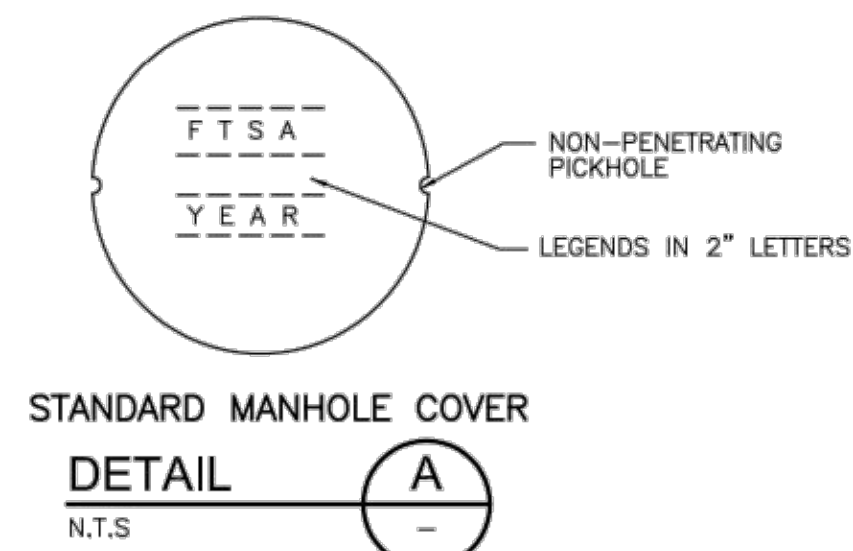
32 BROWER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
 EMAIL: VCC@VCEA.ORG WEB: WWW.VCEA.ORG
 PHONE: (908) 359-8291 FAX: (908) 359-1560

OFFICES THROUGHOUT
 NJ, EASTERN PA AND DE

NJ LLC CERT. NO. 24GA2812300

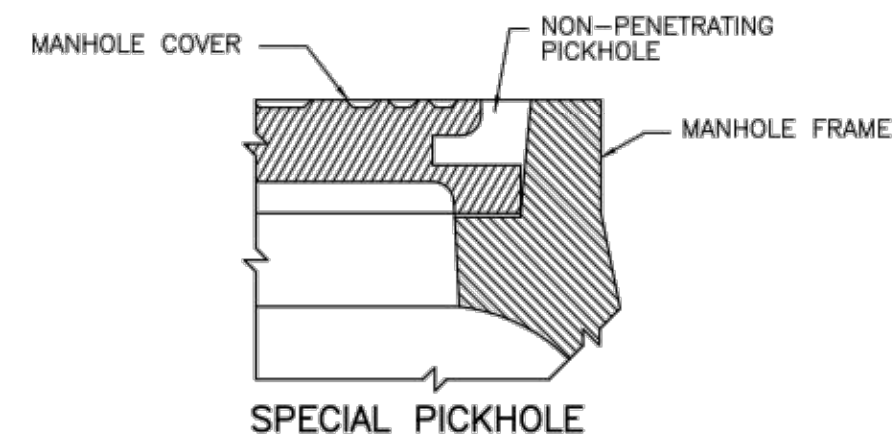
STANDARD SANITARY SEWER DETAILS
 FOR
 LOT 14.02 IN BLOCK 286
 SITUATED IN
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY

BY: *Michael K. Ford*
 Michael K. Ford
 New Jersey Professional Engineer
 No. 34722

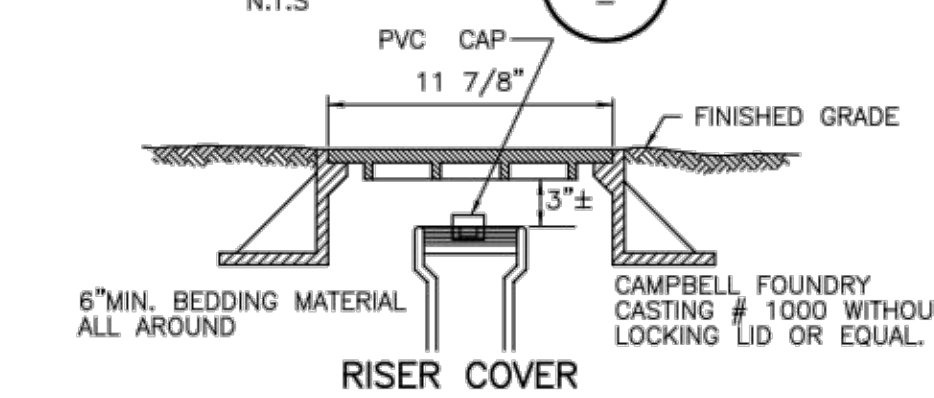


NOTES :

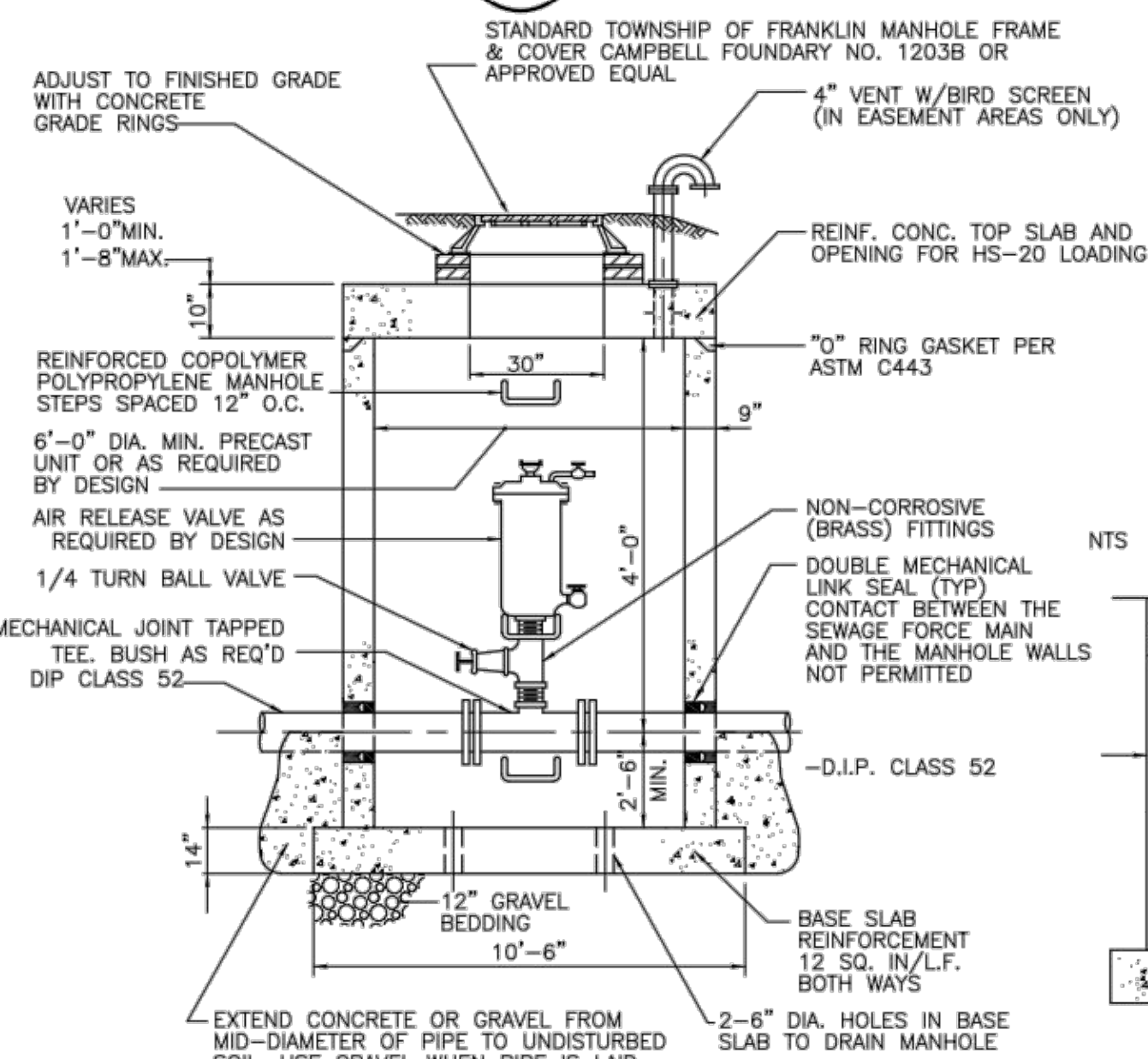
1. MANHOLE COVERS SHALL INDICATES "FTSA" AND YEAR
2. SEATING SURFACES OF MANHOLE FRAME AND COVERS SHALL BE MACHINED TO INSURE A NON-CHATTERING FIT. MANHOLE FRAMES AND COVERS SHALL BE PROPERLY CLEANED AND DIP COATED IN A WATERPROOF ASPHALTUM PAINT.
3. MANHOLE COVERS TO BE CAMPBELL NO. 1203 B OR AN APPROVED EQUAL.
4. LETTERING TO BE APPROVED BY AUTHORITY PRIOR TO CASTING.
5. NO STANDARD COVERS ARE TO HAVE VENTS.



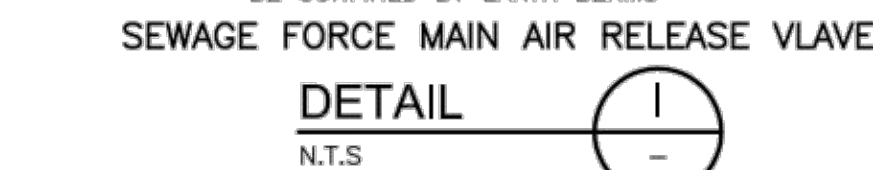
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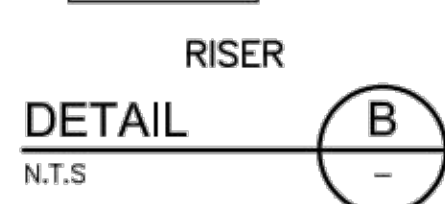
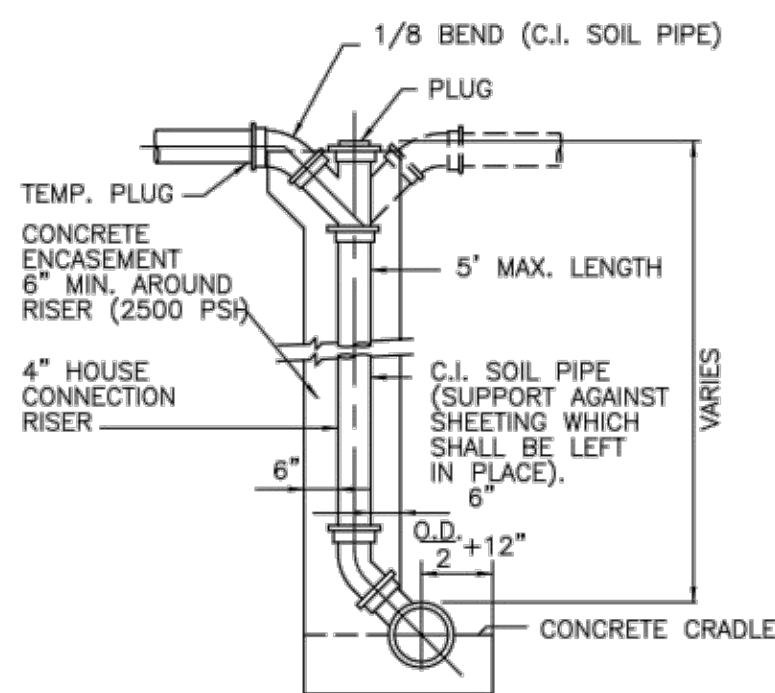
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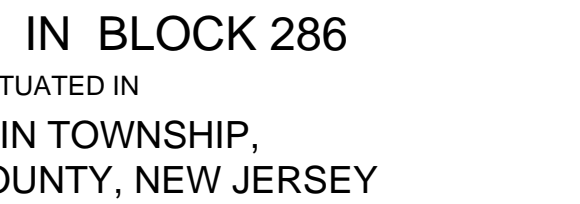
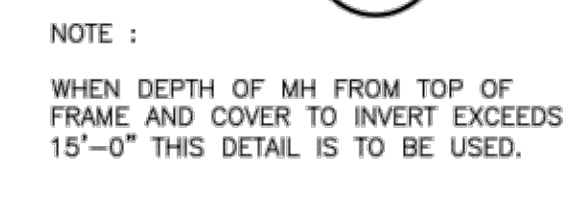
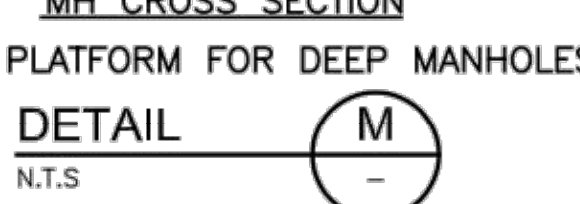
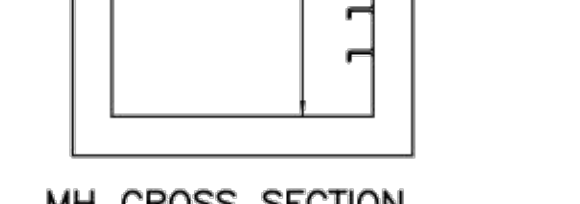
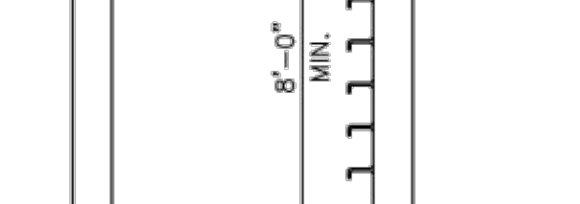
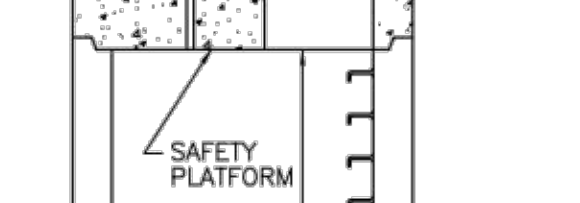
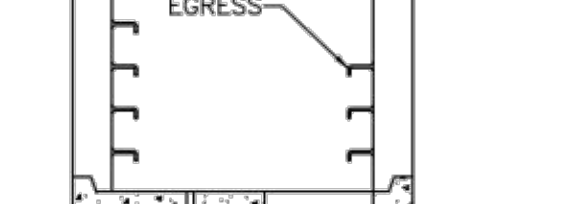
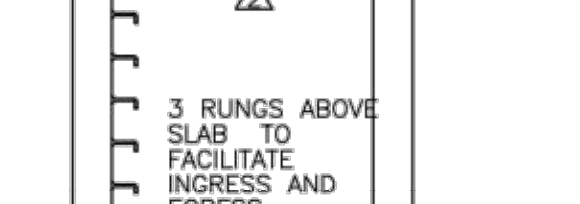
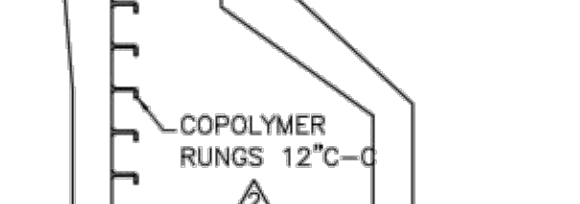
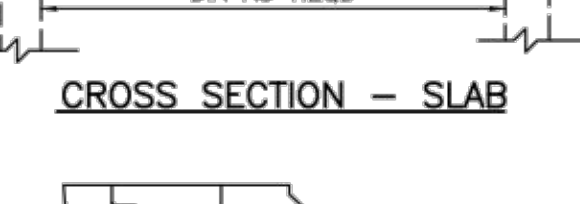
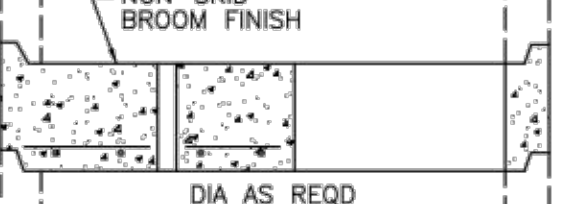
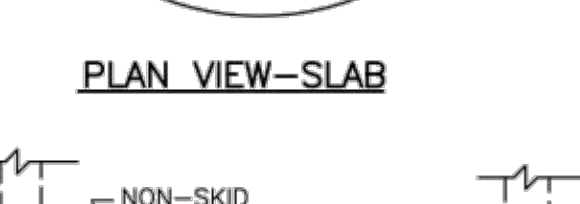
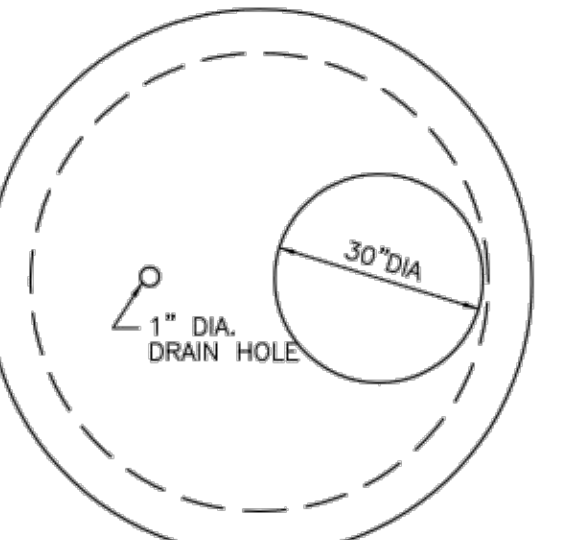
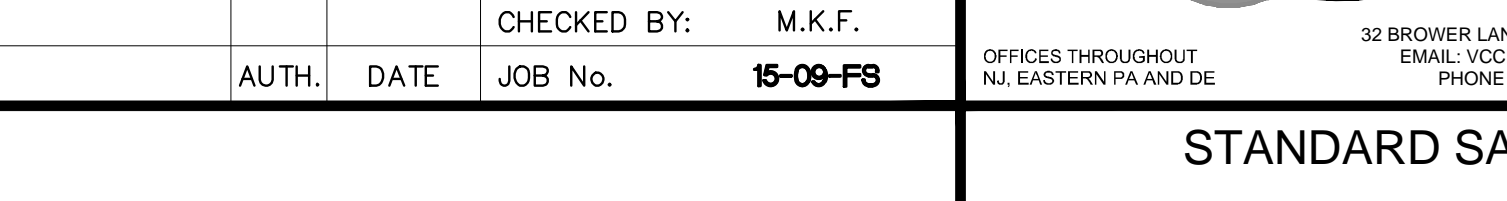
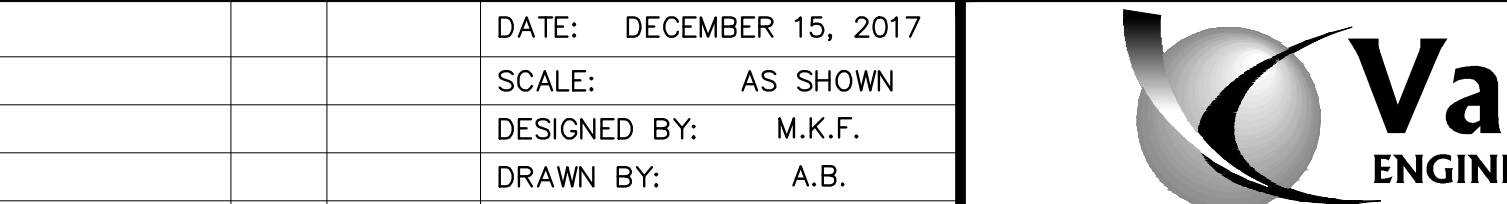
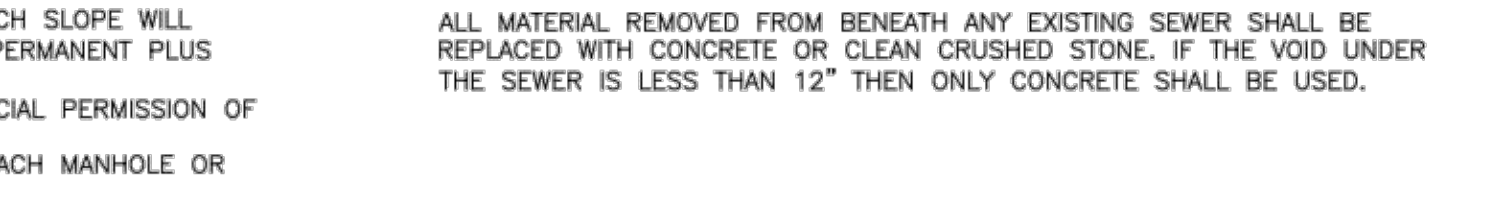
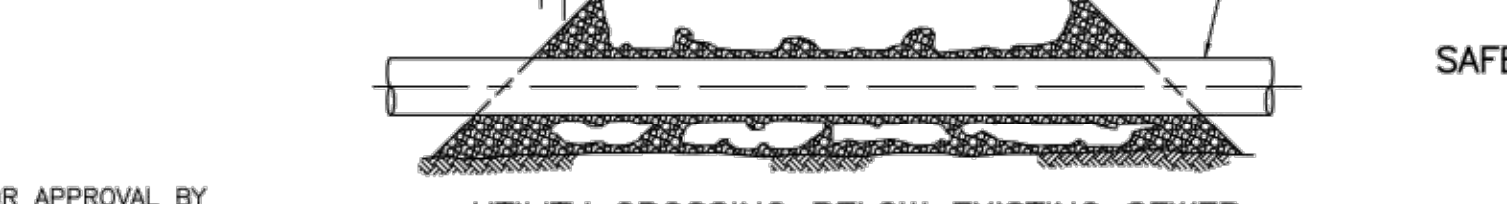
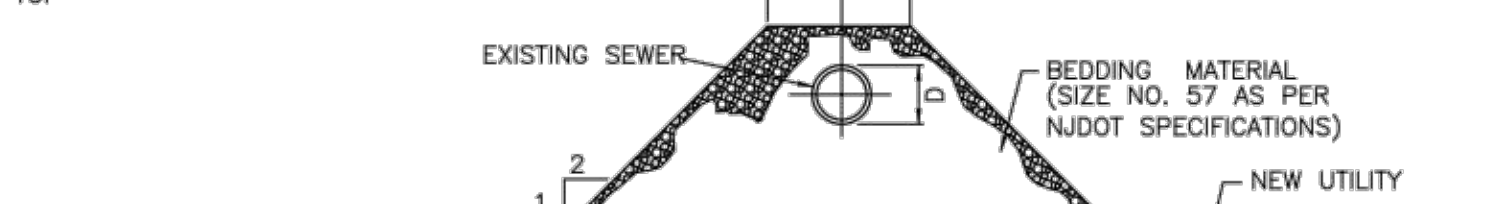
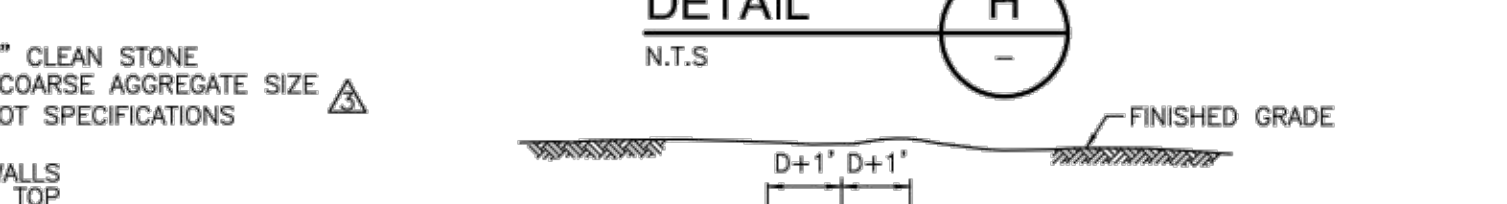
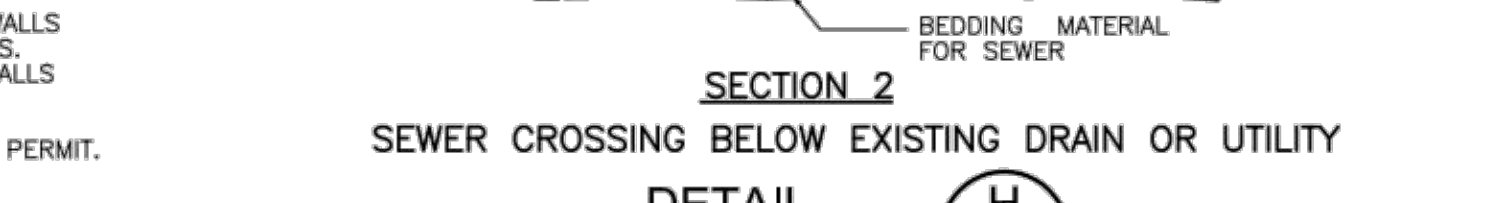
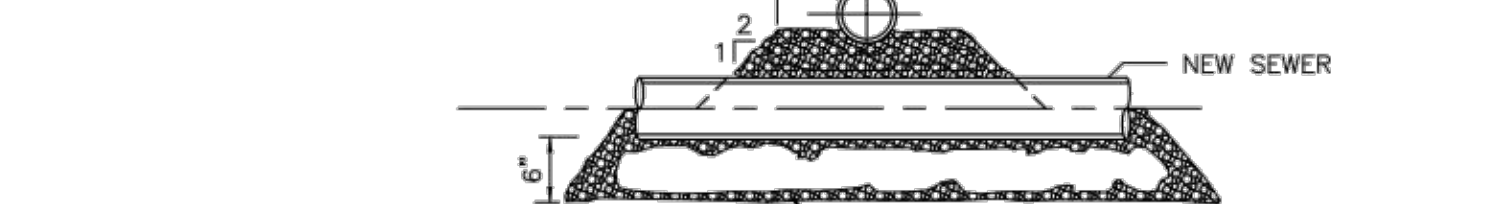
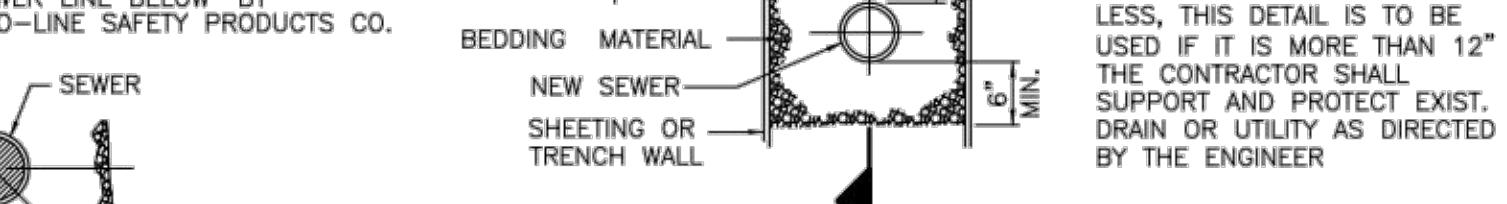
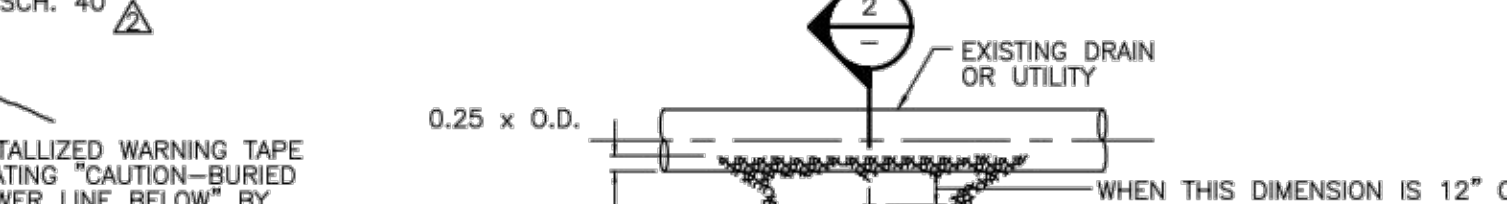
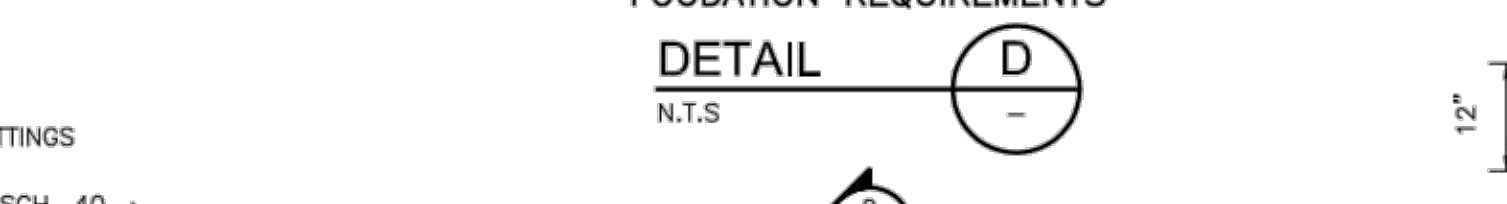
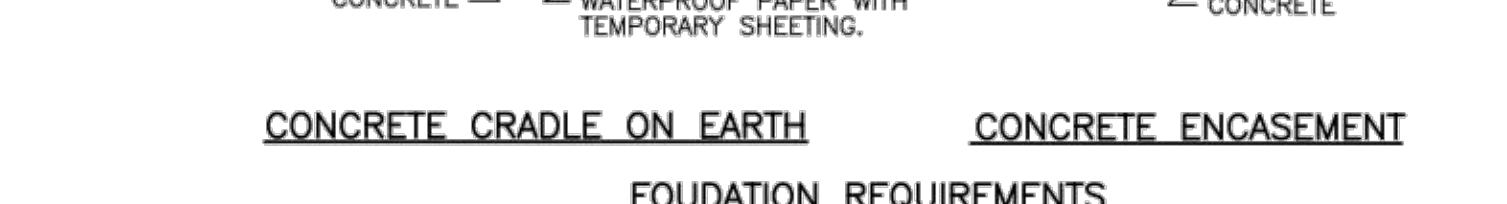
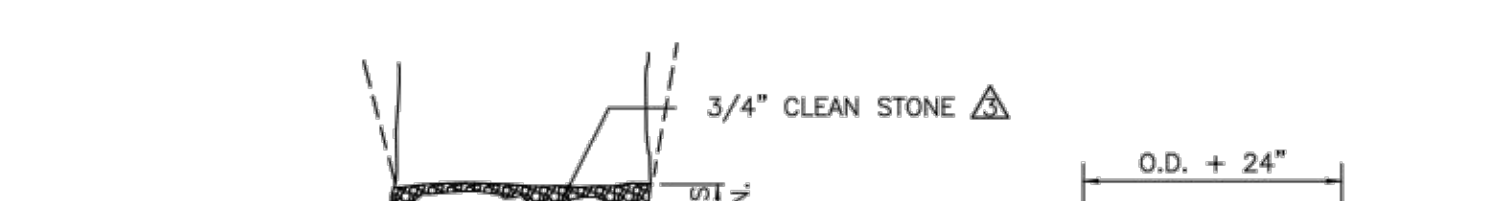
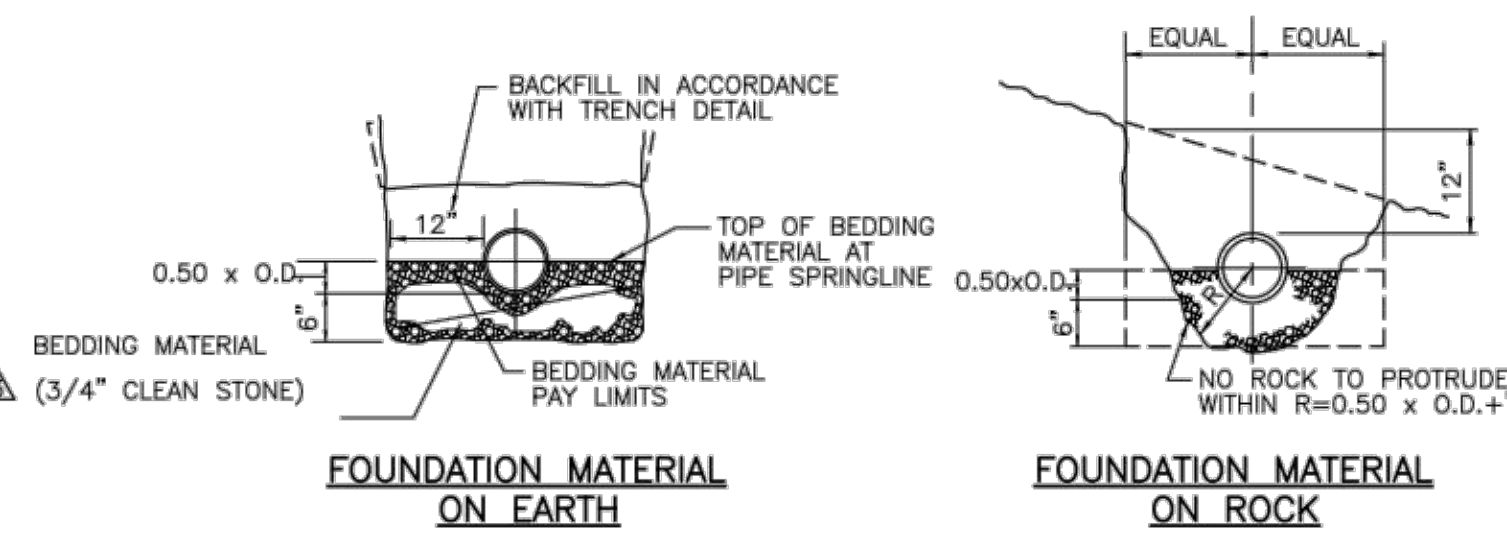
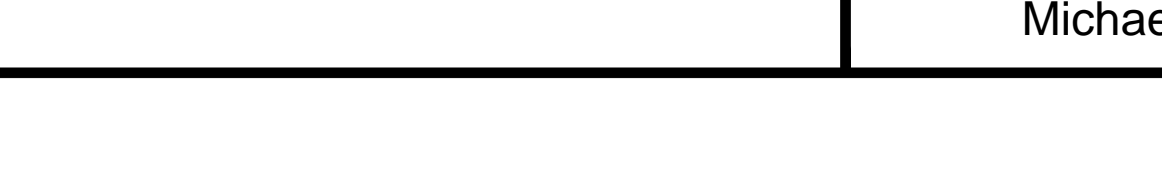
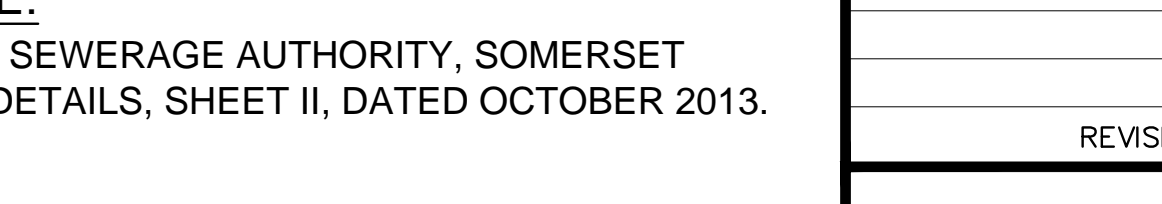
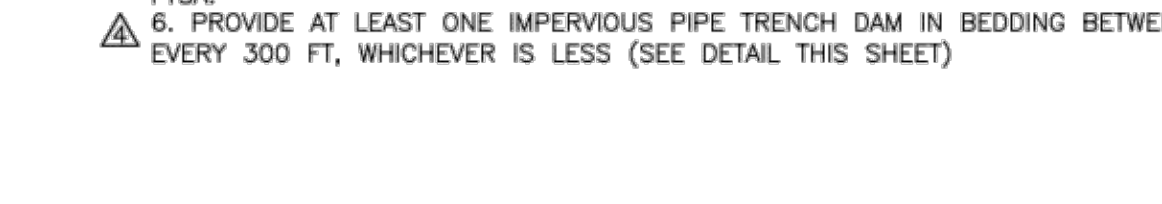
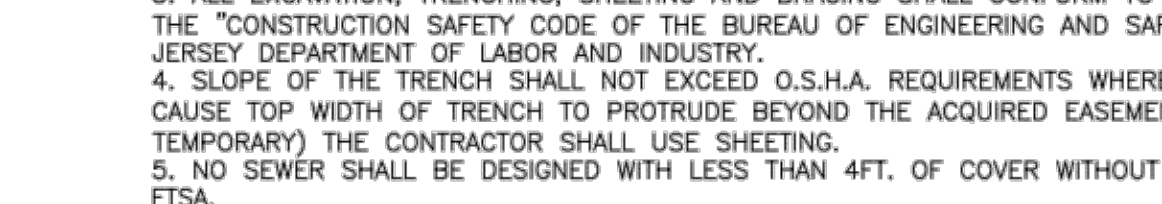
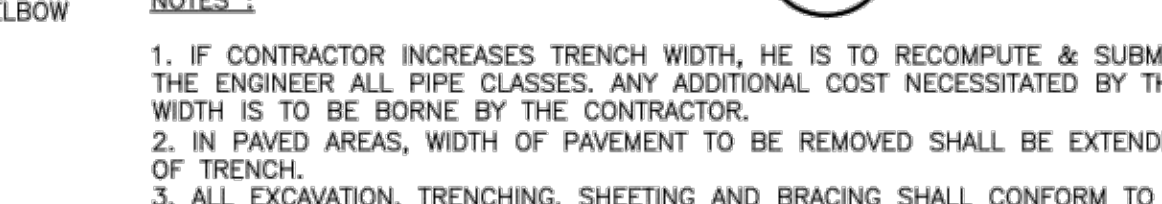
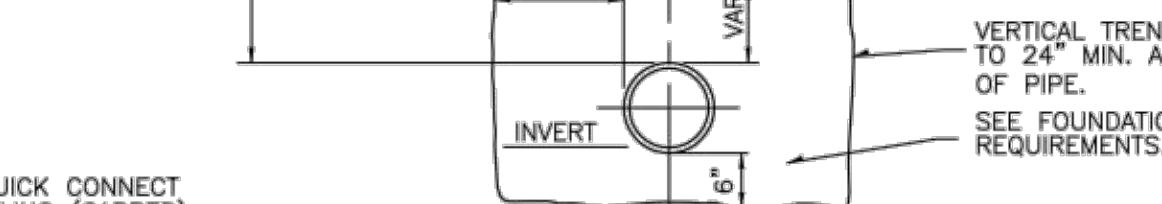
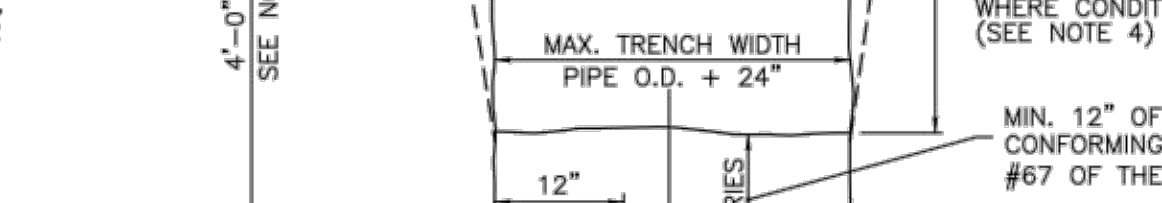
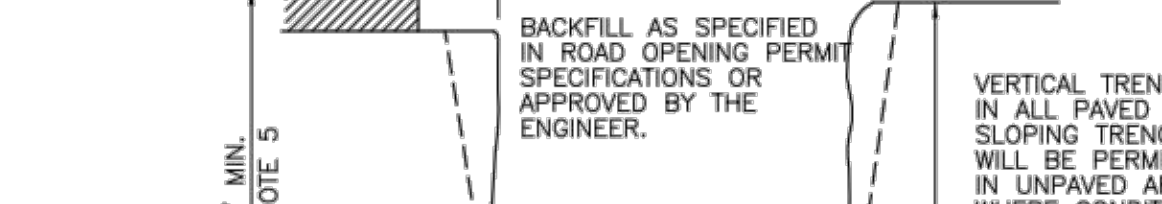
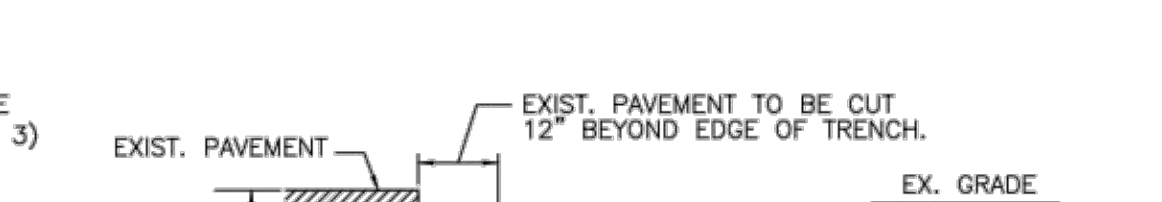
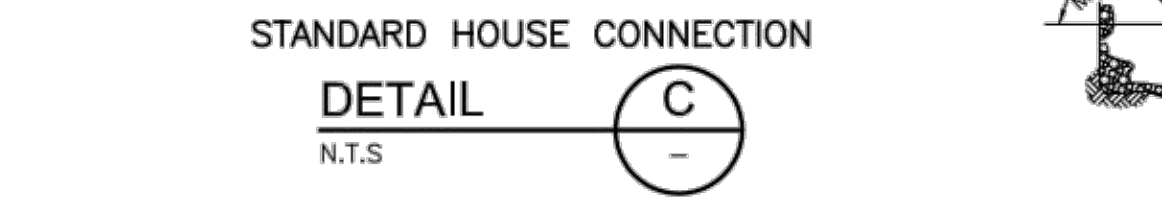
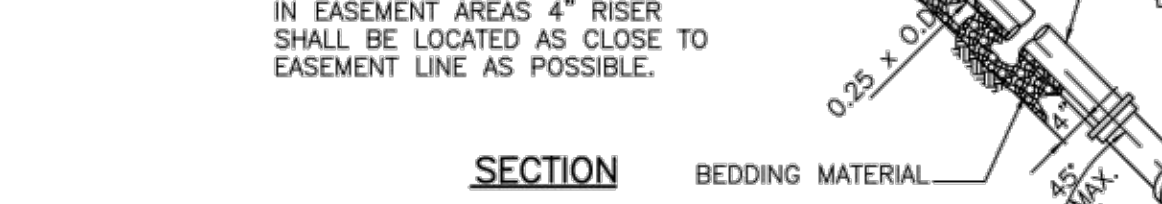
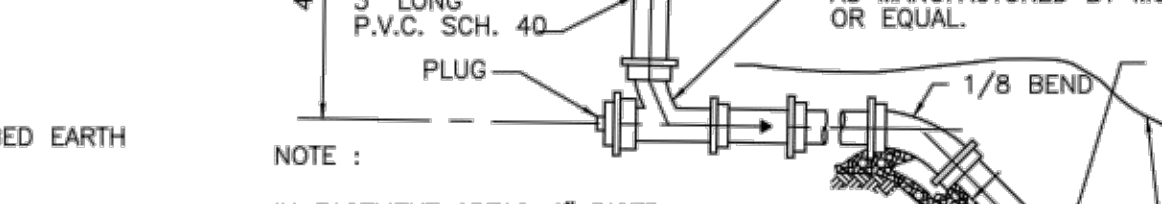
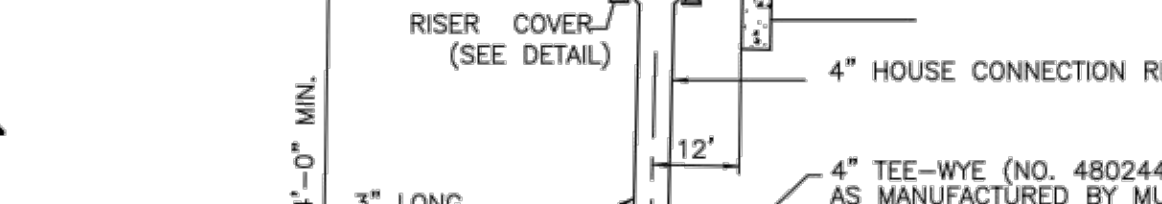
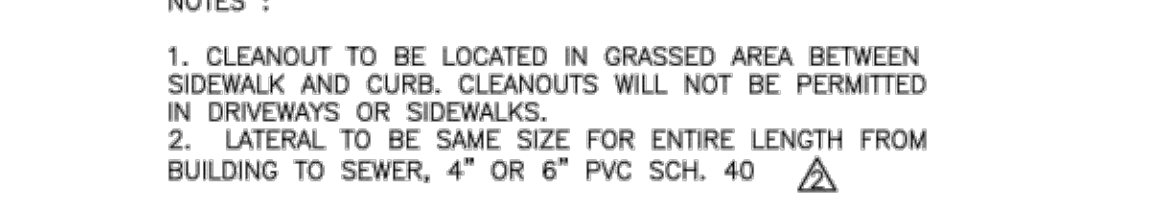
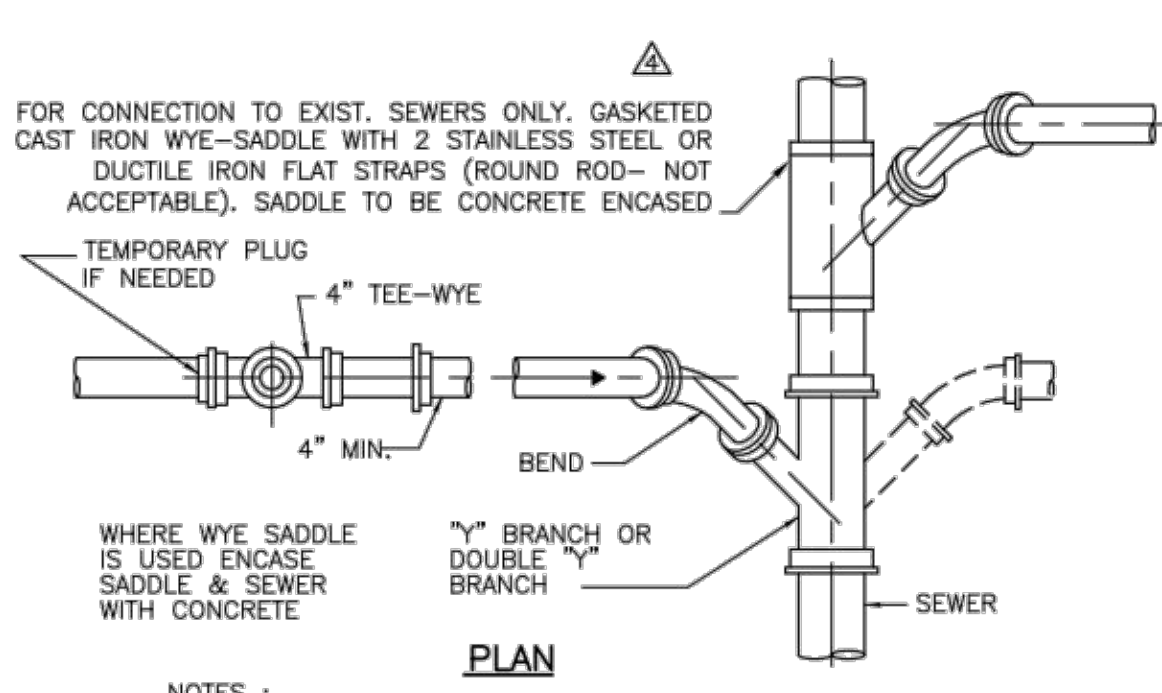
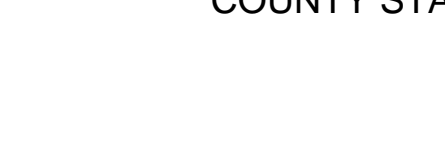
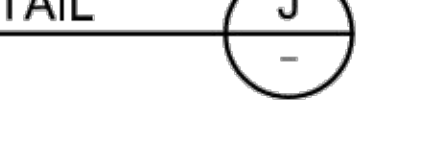
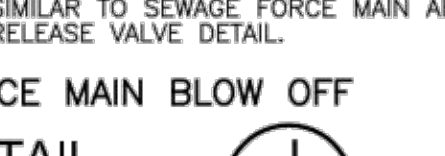
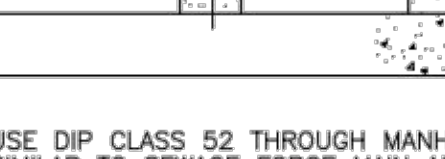
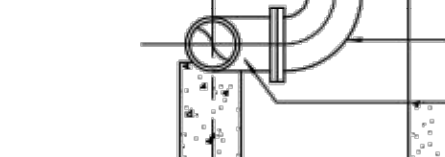
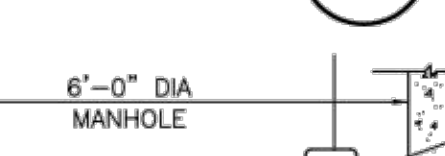
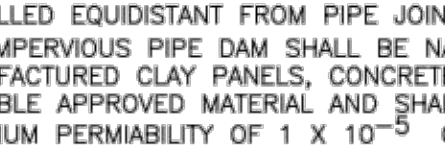
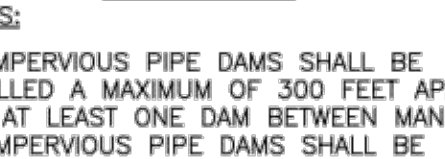
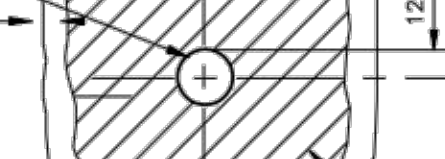
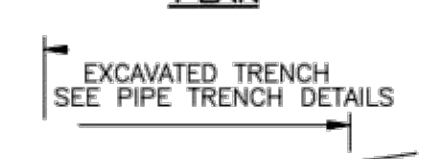
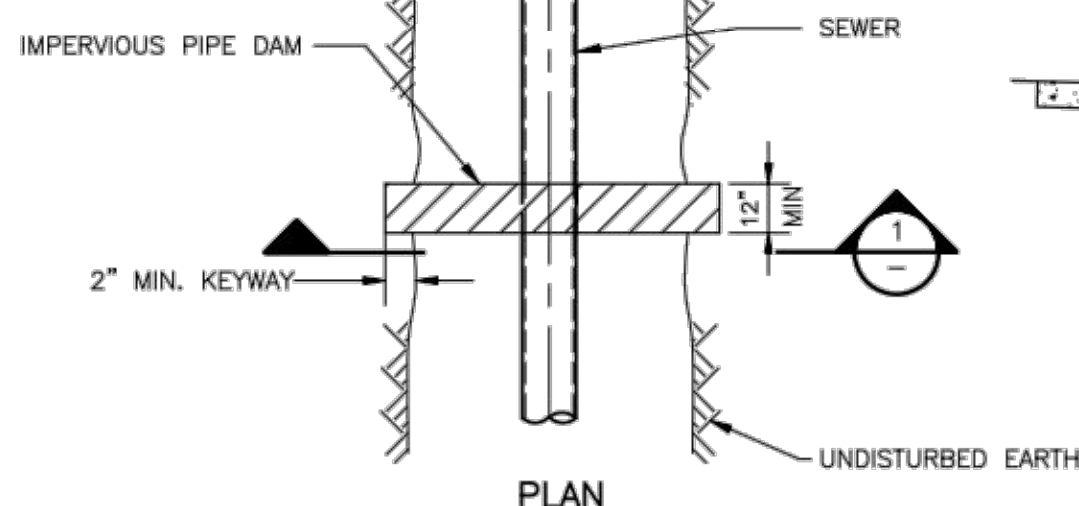
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N.T.S.



N.T.S.



PLAN REFERENCE:
FRANKLIN TOWNSHIP SEWERAGE AUTHORITY, SOMERSET COUNTY STANDARD DETAILS, SHEET II, DATED OCTOBER 2013.

NOTE: ALL WORK SHALL COMPLY WITH THE REVISIONS OF THE "RATES, RULES & REGULATIONS APPLICABLE TO SEWER SERVICE IN THE TOWNSHIP OF FRANKLIN, SOMERSET COUNTY, NEW JERSEY" IN EFFECT AT THE TIME CONSTRUCTION BEGINS.

DATE:	DECEMBER 15, 2017
SCALE:	AS SHOWN
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
REVISIONS	AUTH. DATE
	15-09-FS
BY:	Michael K. Ford New Jersey Professional Engineer No. 34722

Van Cleef
ENGINEERING ASSOCIATES

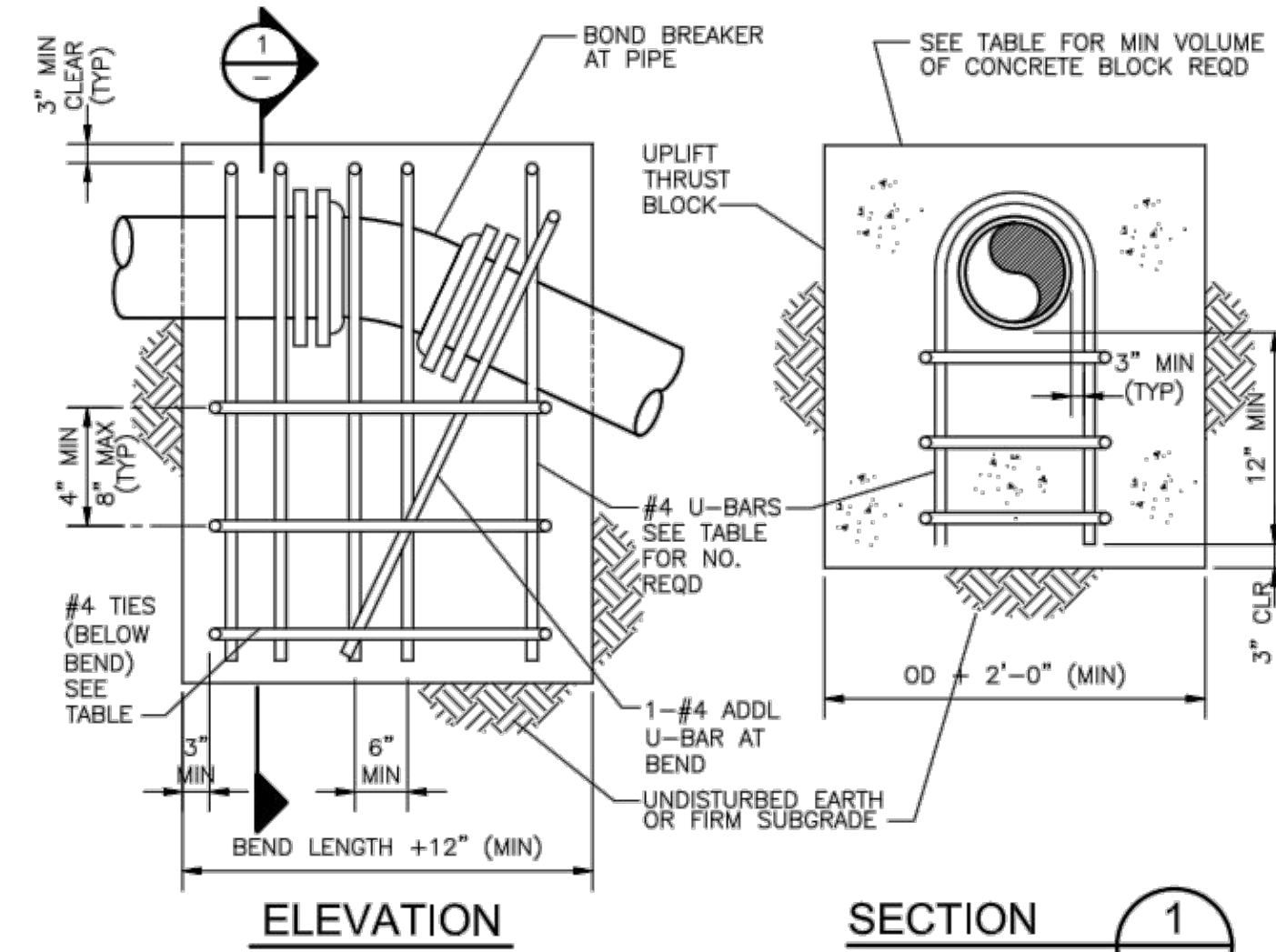
Consulting Civil Engineering
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OFFICES THROUGHOUT NJ, EASTERN PA AND DE

NJ LLC CERT. NO. 24GA2812300

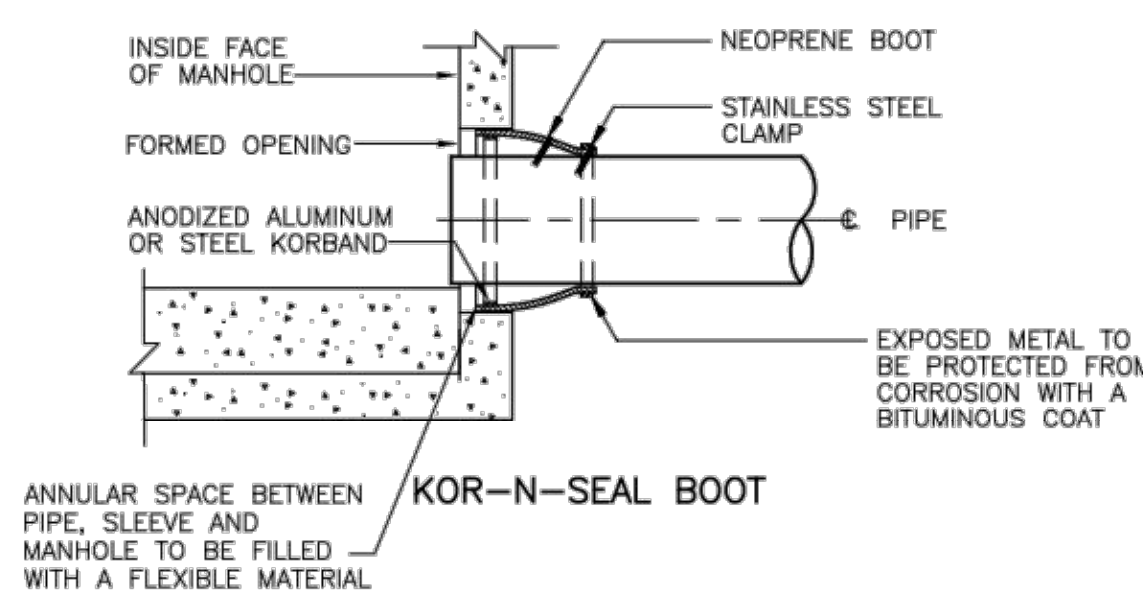
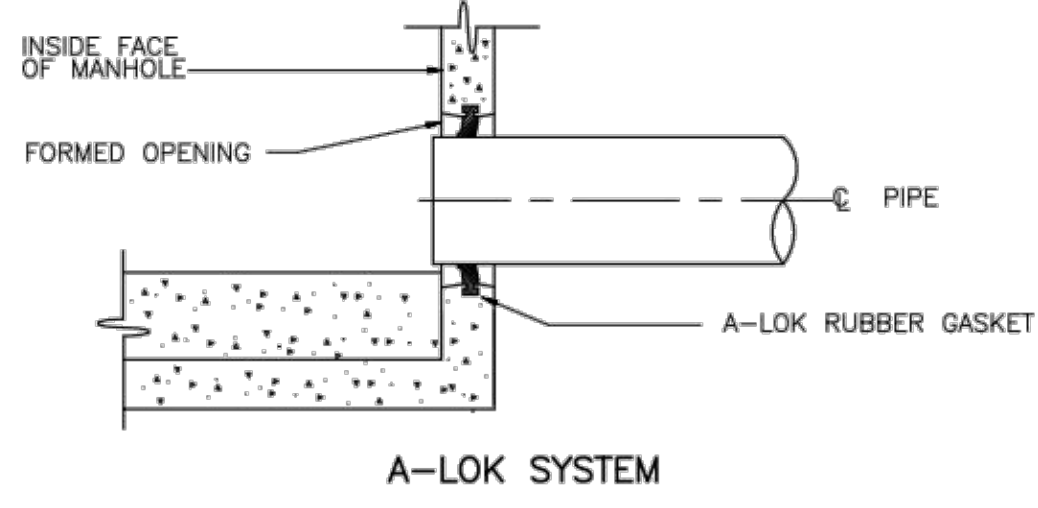
STANDARD SANITARY SEWER DETAILS
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY



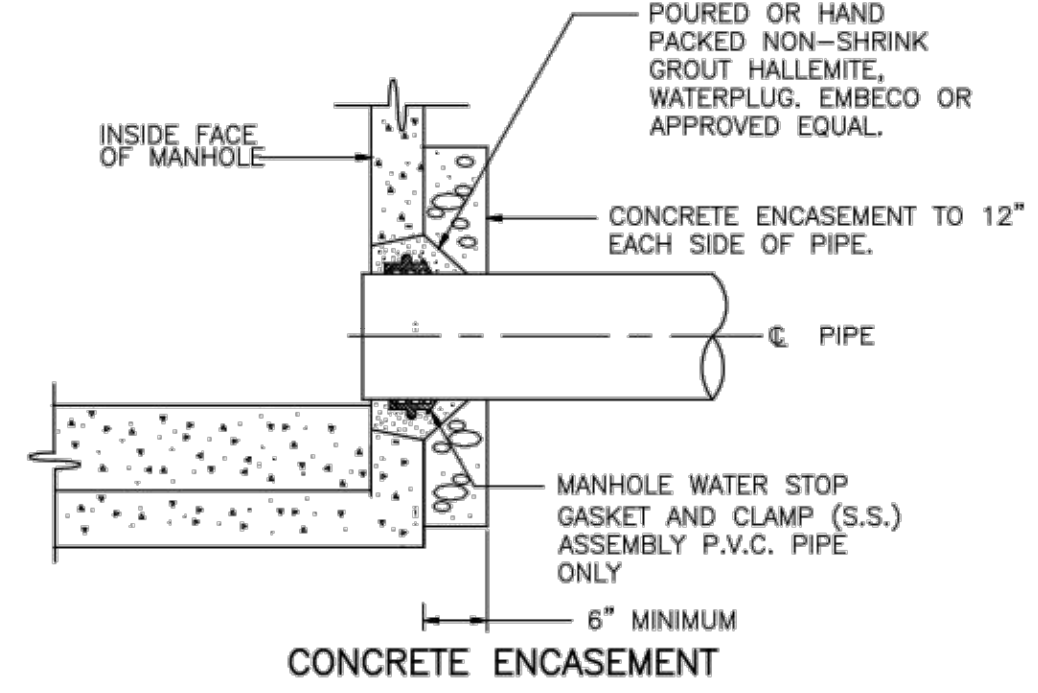
PIPE SIZE (IN.)	PIPE O.D. (IN.)	60 DEG		45 DEG		30 DEG		22.5 DEG		#4 TIES REOD
		REINF	CONC	REINF	CONC	REINF	CONC	REINF	CONC	
3	3.96	2	1	2	0.5	2	0.5	2	0.5	2
4	4.80	2	1	2	1.0	2	0.5	2	0.5	2
6	6.90	2	2	2	1.5	2	1.0	2	1.0	2
8	9.05	2	3.5	2	3	2	2	2	1.5	2
10	11.10	2	5	2	4	2	3	2	2.0	2
12	13.20	3	7	3	6	2	4	2	3	2
14	15.30	4	9	4	7	3	5	2	4	4
16	17.40	6	12	5	10	3	7	3	5	4
18	19.50	7	15	6	12	4	9	3	7	4

- NOTES:
 1. "REINF" = NO. OF #4-U-BARS REQUIRED.
 2. "CONCRETE" = VOLUME OF CONCRETE BLOCK REQUIRED, CU YD.
 3. MAXIMUM TEST PRESSURE = 1.50x1.50 PSI.
 4. MINIMUM GRADE 40 REBAR.

THRUST BLOCK FOR UPPER VERTICAL BENDS WITH REINFORCING BARS
 DETAIL A
 N.T.S.

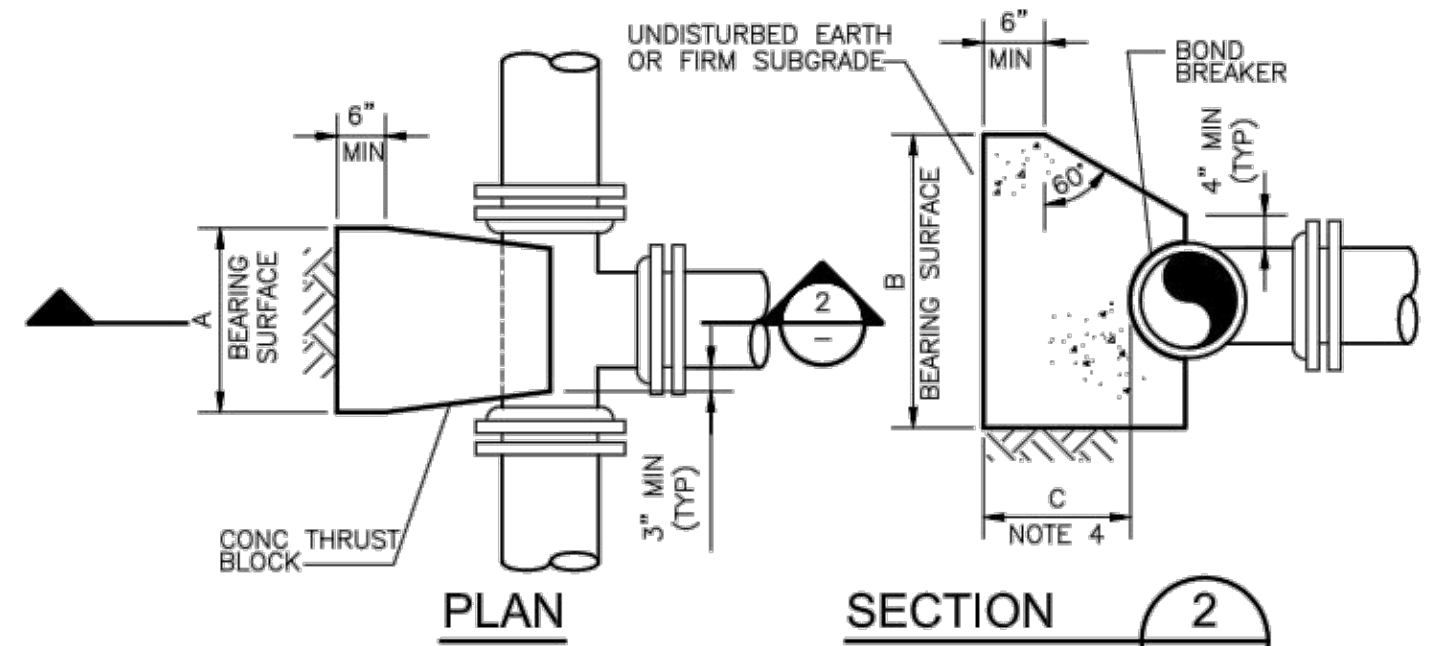


PIPE CONNECTIONS I
 DETAIL D
 N.T.S.

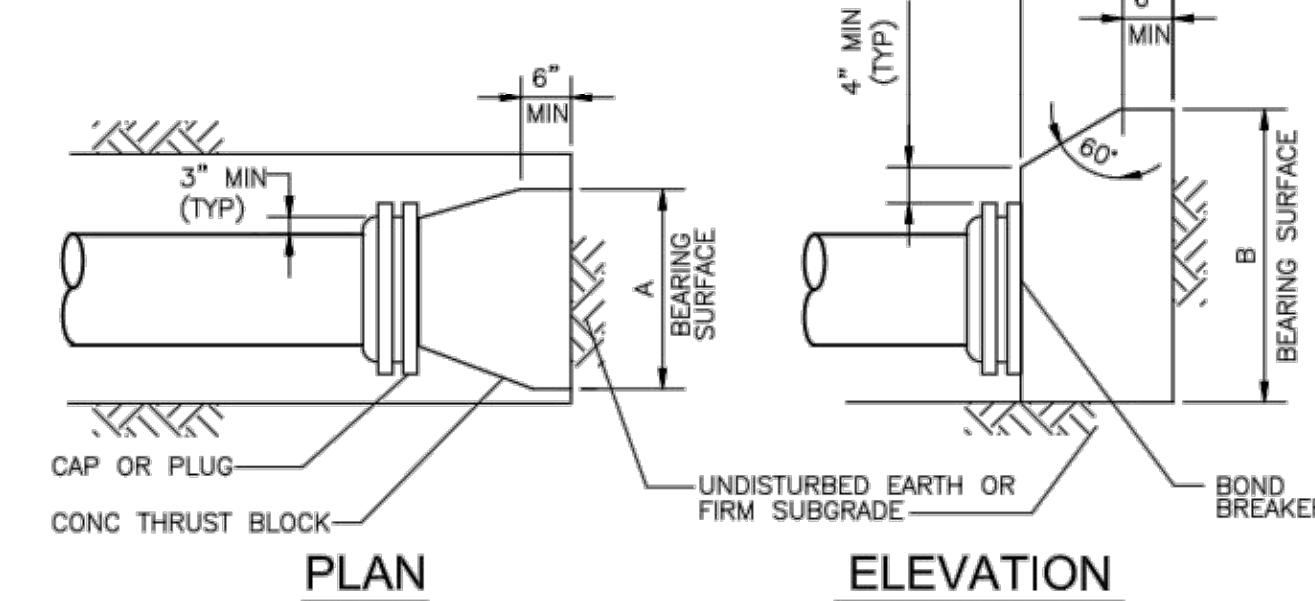


PIPE CONNECTIONS II
 DETAIL E
 N.T.S.

PLAN REFERENCE:
 FRANKLIN TOWNSHIP SEWERAGE AUTHORITY, SOMERSET COUNTY STANDARD DETAILS, SHEET III, DATED OCTOBER 2013.



DETAIL FOR TEES

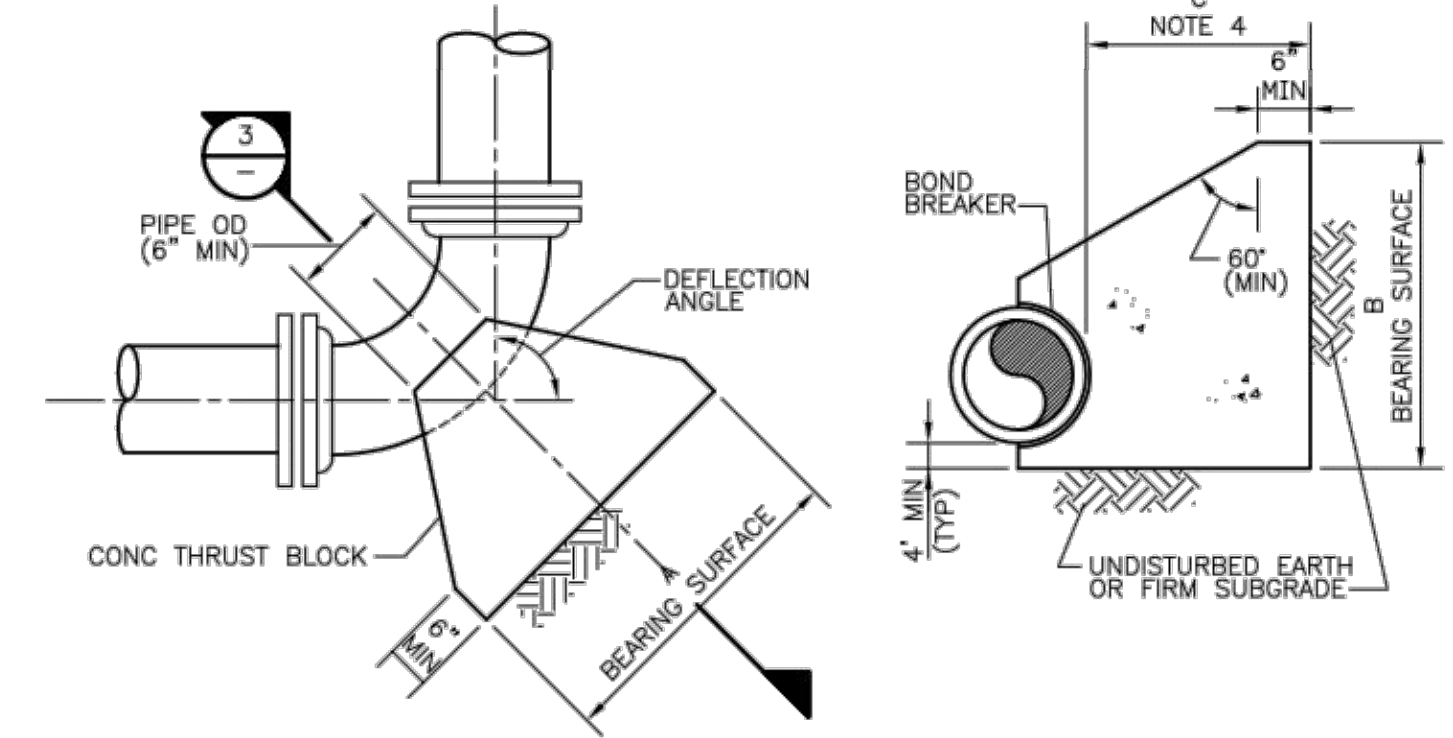


DETAIL FOR CAPS OR PLUGS

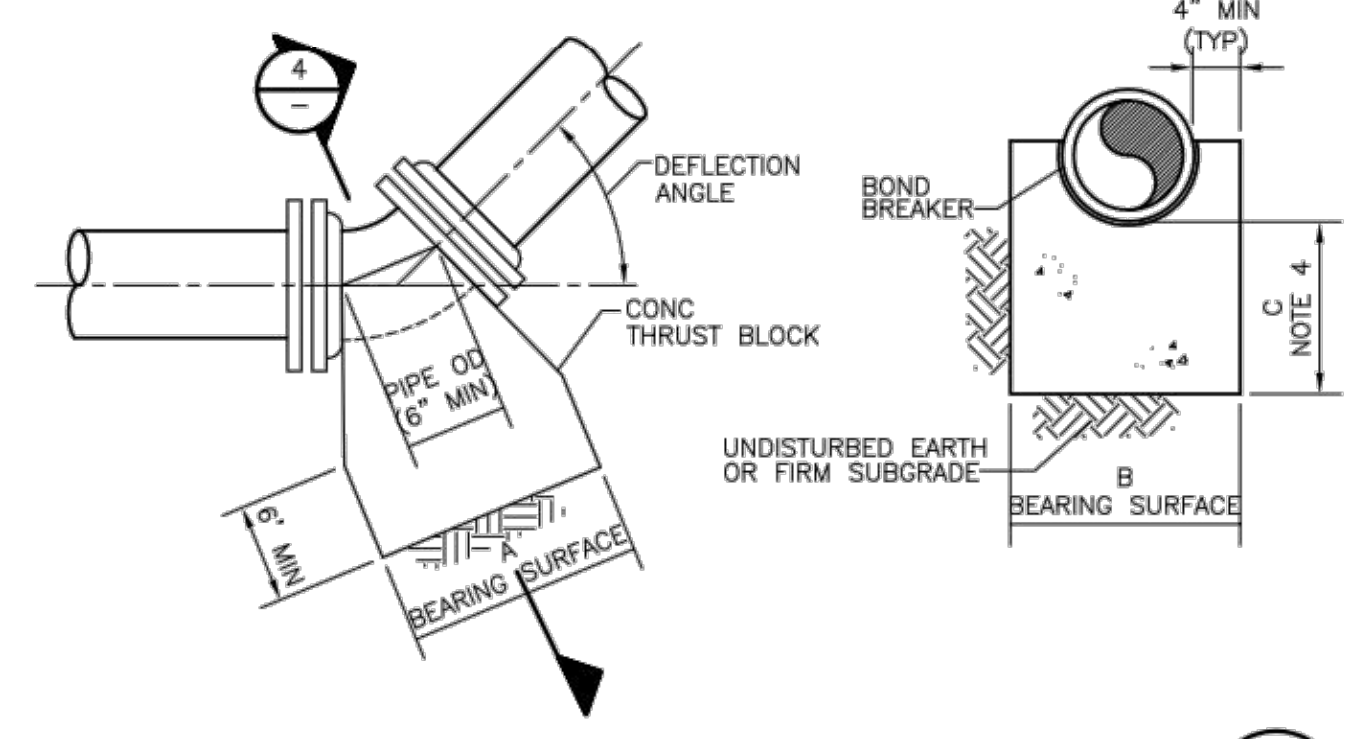
NOMINAL PIPE SIZE (IN)	MAXIMUM PIPE OD (IN)	REQUIRED BEARING AREA (SQ FT)
3	3.96	1.4
4	4.80	2.0
6	6.90	4
8	9.05	7
10	11.10	11
12	13.20	15
14	15.30	21
16	17.40	27
18	19.50	34
20	21.60	41
24	25.80	59
30	32.00	90
36	38.30	130

- NOTES:
 1. MAXIMUM TEST PRESSURE = 1.50x150 PSI
 2. MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
 3. BEARING AREA = A x B
 4. C SHALL BE GREATER THAN A/2 AND B/2.

THRUST BLOCK FOR TEES, CAPS AND PLUGS
 DETAIL B
 N.T.S.



DETAIL FOR HORIZONTAL BENDS



DETAIL FOR LOWER VERTICAL BENDS

NOMINAL PIPE SIZE (INCHES)	MAXIMUM PIPE OD (INCHES)	REQUIRED BEARING AREA (SQ FT)					
		90 DEG	60 DEG	45 DEG	30 DEG	22.50 DEG	11.25 DEG
3	3.96	2.0	1.4	1.1	0.7	0.5	0.3
4	4.80	2.9	2.0	1.6	1.1	0.8	0.4
6	6.90	6	4	3	2.2	1.6	0.8
8	9.05	10	7	6	4	3	1.4
10	11.10	15	11	8	6	4	2.1
12	13.20	22	15	12	8	6	3
14	15.30	29	21	16	11	8	4
16	17.40	38	27	20	14	10	5
18	19.50	48	34	26	17	13	7
20	21.60	58	41	32	21	16	8
24	25.80	83	59	45	30	23	12
30	32.00	128	90	69	47	35	18
36	38.30	183	130	99	67	51	25

THRUST BLOCKS FOR HORIZONTAL BENDS AND LOWER VERTICAL BENDS

- NOTES:
 1. MAXIMUM TEST PRESSURE = 1.5 x 150 PSI
 2. MINIMUM ALLOWABLE SOIL BEARING PRESSURE = 2000 PSF
 3. BEARING AREA = A x B
 4. C SHALL BE GREATER THAN A/2 AND B/2.

THRUST BLOCKS FOR HORIZONTAL BENDS AND LOWER VERTICAL BENDS
 DETAIL C
 N.T.S.

DATE:	DECEMBER 15, 2017
SCALE:	AS SHOWN
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
REVISIONS	AUTH. DATE JOB No. 15-09-FS

BY: *Michael K. Ford*
 Michael K. Ford
 New Jersey Professional Engineer
 No. 34722

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 Environmental Engineering
 Municipal Engineering
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STANDARD SANITARY SEWER DETAILS
 FOR
 LOT 14.02 IN BLOCK 286
 SITUATED IN
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY

GENERAL NOTES FOR SOIL EROSION AND SEDIMENT CONTROL PLANS

- ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO NJ STATE STANDARDS.
- PERMANENT VEGETATION SHALL BE SEEDING OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NJ STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.
- A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROADS, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OR PRELIMINARY GRADING.
- IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (I.E.: STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO THE NJ STATE STANDARDS.
- ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E.: SLOPES GREATER THAN 3:1).
- TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X30'X6" PAD OF 1 1/2" OR 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED IN WRITING 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.
- AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A MANNER THAT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- IN THAT NJSA 4:24-38 ET SEQ., REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES. ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT NJ STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.
- THE SOMERSET-UNION SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.
- MULCHING TO THE NJ STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMPLIANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.
- CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DURING LIFE OF CONSTRUCTION PROJECT.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE SOMERSET-UNION SOIL CONSERVATION DISTRICT.
- HYDRO SEEDING IS A TWO-STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME, ETC., ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO-MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN SECOND STEP. THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE NJ STANDARDS.

BASIN COMPACTION NOTES

- IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" INCHES WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
- INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED IN ACCORDANCE WITH ABOVE.
- IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" INCHES WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD SEED TO SOIL CONTACT. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATION SYSTEMS, ETC.).
- SOIL COMPACTION RESULTING FROM LAND GRADING ACTIVITIES CAN IMPACT THE INFILTRATION RATE OF THE SOIL. RESTORATION OF COMPACTED SOILS THROUGH DEEP TILLAGE (6" TO 12") AND THE ADDITION OF ORGANIC MATTER MAY BE REQUIRED IN PLANNED PVIOUS AREAS TO ENHANCE THE INFILTRATION RATE OF THE DISTURBED SOIL. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLE, IRRIGATION SYSTEMS, ETC.).
- TO PREVENT COMPACTION OF THE SUBSOIL WHICH WILL REDUCE ITS INFILTRATION CAPACITY, BASINS SHOULD BE EXCAVATED WITH LIGHT EARTH MOVING EQUIPMENT, PREFERABLY WITH TRACKS OR OVER-SIZED TIRES RATHER THAN THE NORMAL RUBBER TIRES. ONCE THE FINAL CONSTRUCTION PHASE IS REACHED, THE FLOOR OF THE BASIN SHALL BE DEEPLY TILLED WITH A ROTARY TILLER OR DISC HARROW AND SMOOTHED OVER WITH A LEVELING DRAG OR EQUIVALENT GRADING EQUIPMENT.
- FOR BASINS, ANNUAL TILLING OPERATIONS MAINTAIN INFILTRATION CAPACITY. THESE TILLED AREAS SHOULD BE RE-VEGETATED IMMEDIATELY TO PREVENT EROSION. DEEP TILLING CAN BE USED TO BREAKUP CLOGGED SURFACE LAYERS FOLLOWED BY REGARDING AND LEVELING. SAND OR ORGANIC MATTER CAN BE TILLED INTO THE BASIN FLOOR TO PROMOTE A RESTORED INFILTRATION CAPACITY. SEDIMENT REMOVAL PROCEDURES SHOULD NOT BE UNDERTAKEN UNTIL THE BASIN IS THOROUGHLY DRY. THE TOP LAYER SHOULD BE REMOVED BY LIGHT EQUIPMENT TO PREVENT COMPACTION. THE REMAINING SOIL CAN BE RETILLED AND DISTURBED VEGETATION REPLANTED.

AGRONOMIC RECOMMENDATIONS

- SEED, FERTILIZER, LIME AND TOPSOIL (IF REQUIRED) ALL SCALPED AREAS IMMEDIATELY AFTER FINISHED GRADING IS COMPLETED. LIME AND FERTILIZER RECOMMENDATIONS ARE AS FOLLOWS OR ACCORDING TO RESULTS OF SOIL TESTS:
- FERTILIZER TO BE APPLIED AT THE RATE OF 500 LBS. PER ACRE, 10-20-10.
 - TEMPORARY SEEDING:
 - LIME: 2 TONS PER ACRE GROUND AREA
 - FERTILIZER: 500 LBS. PER ACRE 10-20-10
 - SEED: USE THE FOLLOWING SEED MIXTURE(S) AND RATES BASED ON TIME OF YEAR:
 - EARLY SPRING/LATE SUMMER TO EARLY FALL 100% PERENNIAL RYEGRASS RATE = 100 LBS./ACRE
 - LATE FALL 100% CEREAL RYE RATE = 112 LBS./ACRE
 - MID-SUMMER 40% PEARL MILLET 40% MILLET (GERMAN OR HUNGARIAN) 20% WEeping LOVEGRASS RATE = 100 LBS./ACRE
 - PERMANENT SEEDING: (TO BE APPLIED DURING PERIODS OF 3/01 - 11/15, TEMPORARY SEEDING TO BE APPLIED ALL OTHER TIMES OF THE YEAR)
 - LIME: 2 TONS PER ACRE GROUND AREA
 - FERTILIZER: 500 LBS. PER ACRE 10-20-10
 - SEED:
 - LAMNS - QUALITY SUN AND SHADE 45% PERENNIAL RYEGRASS* 20% CREEPING FESCUE 15% KENTUCKY BLUEGRASS (* INCLUDE AT LEAST TWO DIFFERENT VARIETIES IN MIX) RATE = 200 LBS./ACRE

MINIMUM STABILIZATION REQUIREMENTS

I. SITE PREPARATION

- GRADE AS NEEDED AND FEASIBLE TO PREPARE THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDING PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING AND MAINTENANCE. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
- INSTALL WEED CONTROL PRACTICES AND FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BARRIERS AND WATERWAYS.

II. SEEDING PREPARATION

- APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS THOSE OFFERED BY Rutgers UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAJORS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITE OR WHERE TIME IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH SOIL WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AS FOLLOWS:

SOIL TEXTURE	TONS/ACRE	LBS./1,000 SQ. FT.
CLAY, CLAY LOAM AND HIGH ORGANIC SOIL	3	135
SANDY LOAM, LOAM, SILT LOAM	2	90
LOAMY SAND, SAND	1	45

SOIL TEXTURE

- WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM, FINE SEEDING IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

- REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
- INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.

ADDED SOIL CONDITIONS

SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE SEEDING PREPARATION. THE ADDED SOIL SHALL BE LIMED AS ABOVE.

III. SEEDING

- SEE AGRONOMIC RECOMMENDATIONS OR USE MIXTURE RECOMMENDED BY THE COOPERATIVE EXTENSION SERVICE OR SOIL CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT.
- APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL, CULTPACKER SEEDER OR HYDROSEEDER. THE LATTER MAY BE JUSTIFIABLE FOR LARGE, STEEP AREAS WHERE CONVENTIONAL VEHICLES CANNOT TRAVEL. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED, EXCEPT FOR DRILLED, HYDROSEEDER OR CULTPACKER SEEDERS. SEED SHALL BE INCORPORATED INTO THE SOIL TO A DEPTH OF 1/4 TO 1/2 INCH BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/2 INCH DEEPER ON COARSE TEXTURED SOIL.
- AFTER SEEDING, FIRING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

IV. MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. (THE EXISTENCE OF SATISFACTORY PERMANENT VEGETATION AT THE TIME OF PROJECT OR UNIT COMPLETION SHALL BE DEEMED AS COMPLIANCE WITH THIS MULCHING REQUIREMENT).
- MULCH MATERIALS SHOULD BE UNROTTED SMALL GRAINS OF STRAW, HAY FREE OF SEEDS OR SALT HAY TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A COMBER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLE THE LOWER RATE. MULCH CHIPPER-BLOWERS MUST NOT GRIND THE MATERIAL.
 - SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75 PERCENT TO 95 PERCENT OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 100 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
 - MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES AND COSTS:
 - PEG AND TWINE - DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CROSS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
 - MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
 - CRUMPER (MULCH ANCHORING TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC-HARROW, ESPECIALLY DESIGNED TO PUSH OR OUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
 - LIQUID MULCH-BINDERS - MAYBE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCHES.
 - APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
 - USE OF THE FOLLOWING:
 - SYNTHETIC OR ORGANIC BINDERS - BINDERS SUCH AS CURASOL, DCA-70, PETRO-SET AND TERRA-TACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS.

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NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

SOIL NOTE:

NO SOIL CAN BE IMPORTED TO OR REMOVED FROM THE SITE UNTIL A SOIL IMPORTATION OR EXPORTATION PERMIT HAS BEEN OBTAINED FROM THE TOWNSHIP, AS REQUIRED BY ORDINANCE.

V. IRRIGATION (WHERE FEASIBLE)

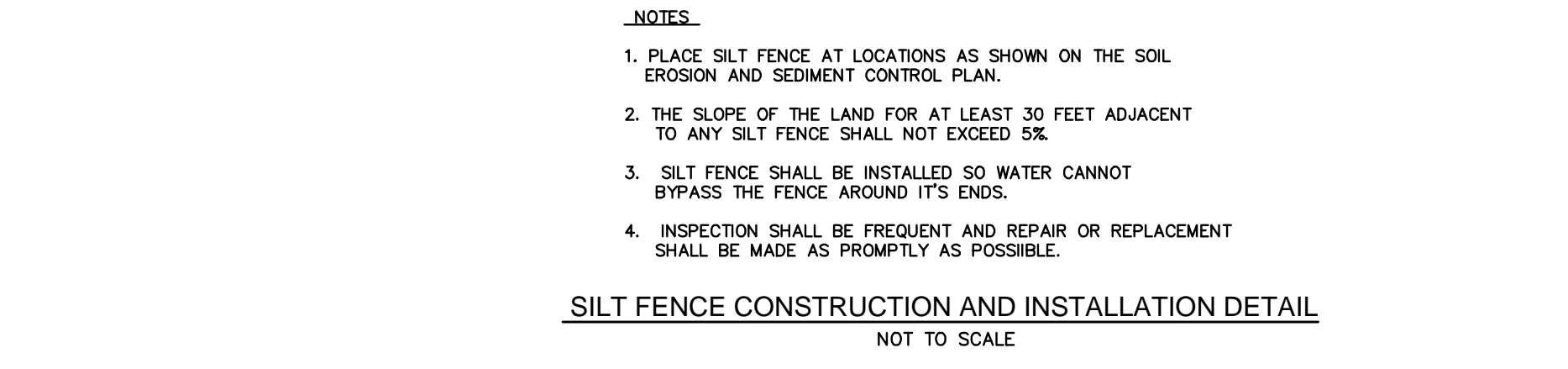
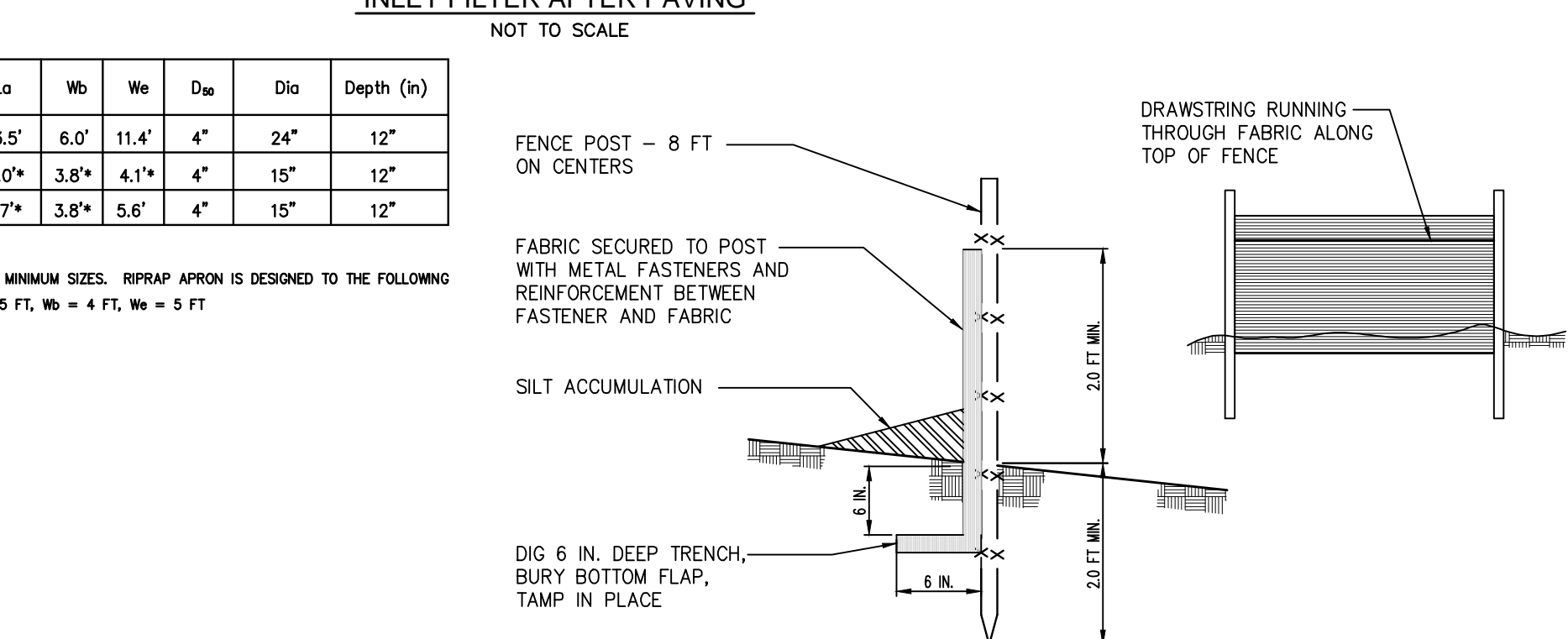
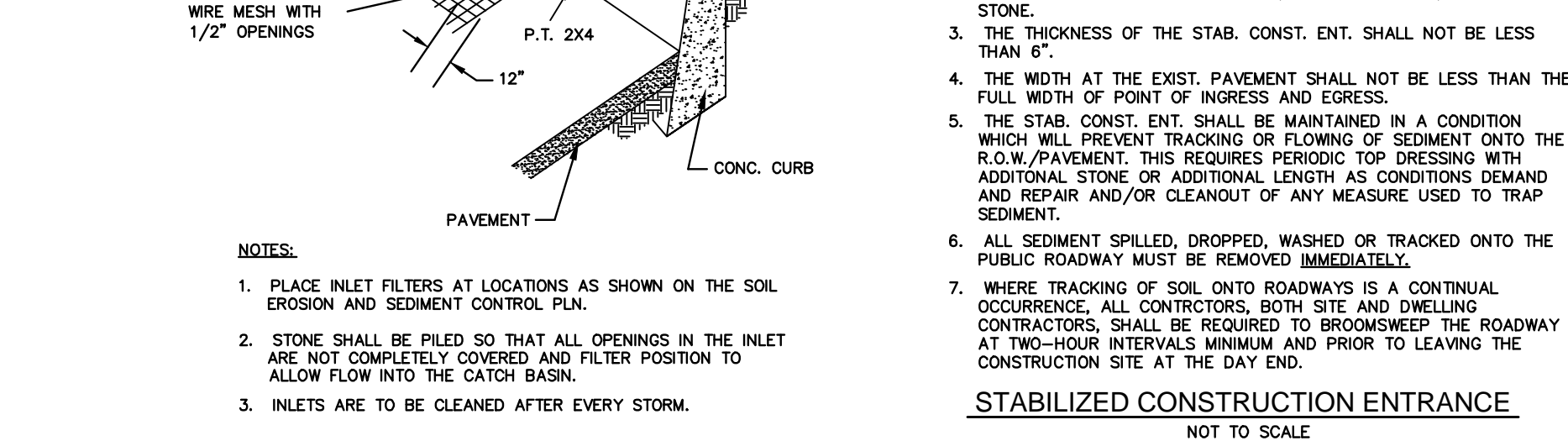
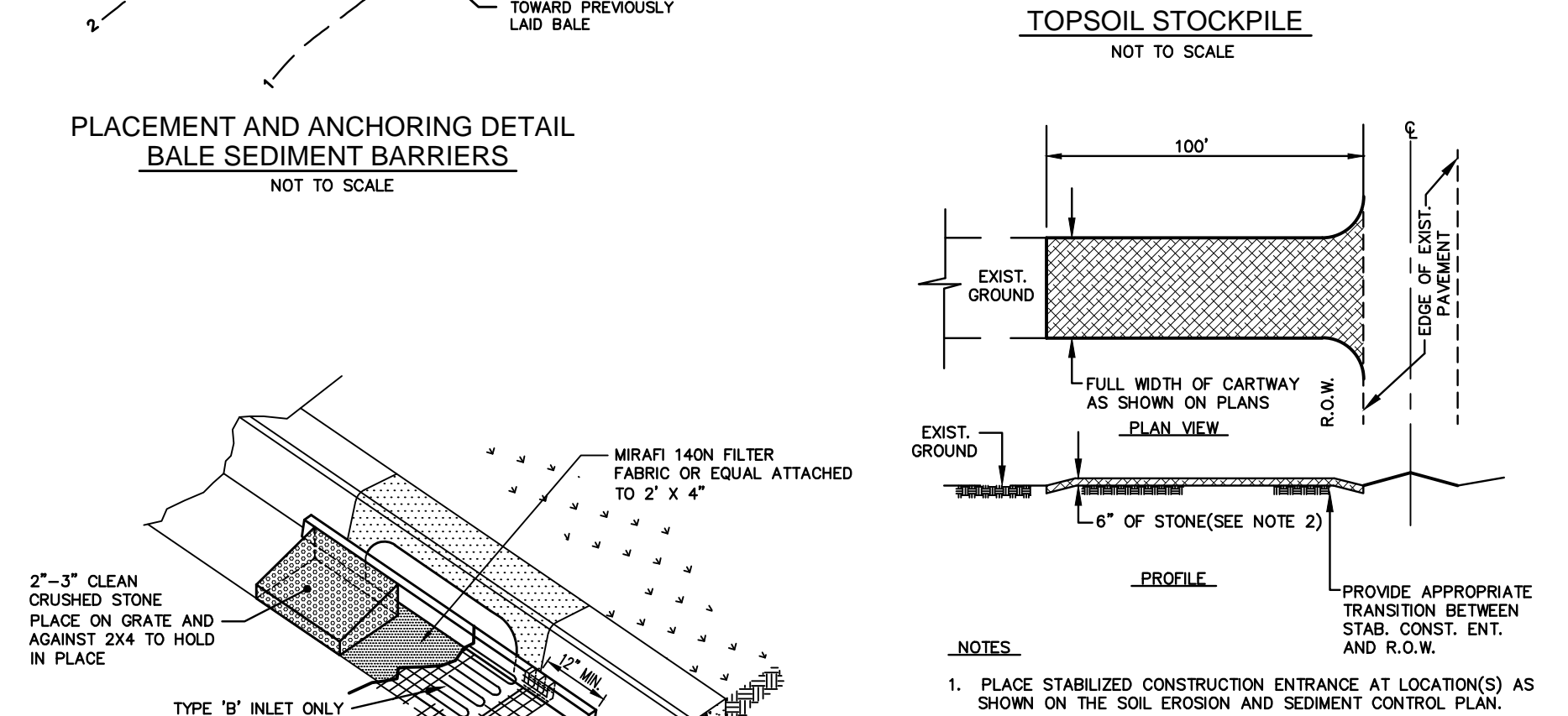
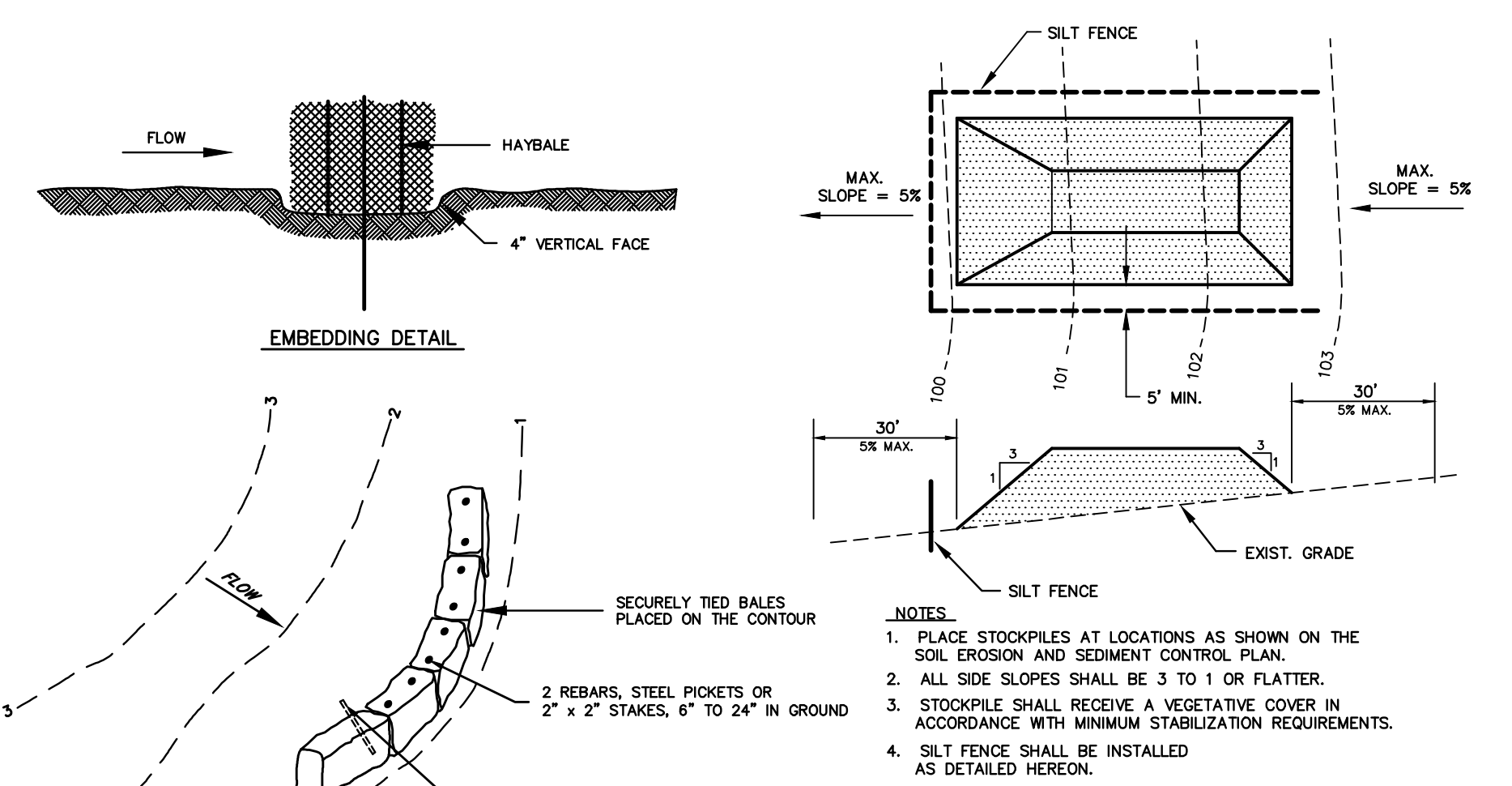
IF SOIL MOISTURE IS DEFICIENT AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

VI. TOPDRESSING:

- SPRING SEEDINGS WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-10-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.
 - FALL SEEDINGS WILL REQUIRE THE ABOVE BETWEEN MARCH 15 AND MAY 1.
 - MIXTURES DOMINATED BY WEeping LOVEGRASS OR LEQUMES MAY NOT NEED TOPDRESSING.
 - BERMUDAGRASS SHOULD BE TOPDRESSED BEFORE AUGUST 15.
- *SLOW RELEASE NITROGEN (200 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THIS FOLLOW-UP OF TOPDRESSING IS NOT MANDATORY.

SEQUENCE OF CONSTRUCTION

- INSTALL ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON PLANS INCLUDING SILT FENCE AND EXISTING TREE PROTECTION MEASURES. SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE USED AT THE POINT OF DESIGN AND AT THE TIME OF SOIL DISTURBANCE FOR A PARTICULAR POINT OF DESIGN (3 DAYS).
 - INSTALL STABILIZED CONSTRUCTION ENTRANCE AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLANS AND DETAILS (1 DAY).
 - DEMOLISH AND REMOVE EXISTING STRUCTURES (5 DAYS).
 - CLEAR AND GRUB ALL AREAS IN ACCORDANCE WITH THE LIMITS OF DISTURBANCE AS SHOWN ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN. IMMEDIATELY REMOVE DEBRIS FROM SITE. (3 WEEKS)
 - CONSTRUCT INFILTRATION BASIN AS FOLLOWS (3 WEEKS):
 - CLEAR AND GRUB INFILTRATION BASIN AREA AND REMOVE DEBRIS FROM SITE.
 - INSTALL INFILTRATION BASIN OUTLET PIPE.
 - CONSTRUCT OUTLET STRUCTURE AND OTHER APPURTENANCES.
 - STABILIZE ALL EXPOSED SOIL WITHIN INFILTRATION BASIN AREA.
 - INSTALL 6" SAND LAYER.
 - STABILIZE ANY STOCKPILED MATERIAL.
 - CONSTRUCT CONDUIT OUTLET PROTECTION.
 - STRIP, STOCKPILE AND STABILIZE TOPSOIL AT LOCATIONS AS SHOWN ON PLANS (3 DAYS).
 - ROUGH GRADE SITE (4 DAYS)
 - CONSTRUCT ALL ONSITE UTILITIES INCLUDING STORM SEWER, CURBING AND BASE COURSE PAVEMENT. INSTALL STORM SEWER PIPE NETWORK ONLY AFTER INFILTRATION BASIN CONSTRUCTION IS COMPLETED. SOIL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED AS CONSTRUCTION PROGRESSES (3 WEEKS).
 - CONSTRUCT STRUCTURE(S), SOIL EROSION SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED AS CONSTRUCTION PROGRESSES (7 MONTHS).
 - FINE GRADE AND STABILIZE ALL DISTURBED AREAS IN ACCORDANCE WITH THE MINIMUM STABILIZATION REQUIREMENTS. REMOVE SEEDING AND INSTALL SOIL PLANTING BED MIXTURE AT BOTTOM OF BASIN. (1 WEEK)
 - REMOVE TREE PROTECTION MEASURES (1 DAY).
 - STABILIZE ANY REMAINING DISTURBED AREAS (2 DAYS).
 - REMOVE ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES (2 DAYS).
 - INSTALL F.A.B.C. TOP COURSE PAVING FOR DRIVEWAY (2 DAYS).
- ESTIMATED DURATION OF PROJECT - 10 MONTHS +/-



		DATE:	DECEMBER 15, 2017
		SCALE:	AS SHOWN
		DESIGNED BY:	M.R.
PER TOWNSHIP	M.K.F.	3/24/22	DRAWN BY: A.B.
PER SUSCD	M.K.F.	7/20/21	CHECKED BY: M.K.F.
REVISIONS	AUTH.	DATE	JOB No. 15-09-FS

Van Cleef
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NJ LIC. CERT. NO. 244242812300

SOIL EROSION & SEDIMENT CONTROL DETAILS
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
**FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY**

BY: *Michael K. Ford*
Michael K. Ford
New Jersey Professional Engineer
No. 34722

Soil De-compaction and Testing Requirements

Soil Compaction Testing Requirements

- Subgrade soils prior to the application of topsoil (see permanent seeding and stabilization notes for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
- Areas of the site which are subject to compaction testing and/or mitigation are graphically denoted on the certified soil erosion control plan.
- Compaction testing locations are denoted on the plan. A copy of the plan or portion of the plan shall be used to mark locations of tests, and attached to the compaction remediation form, available from the local soil conservation district. This form must be filled out and submitted prior to receiving a certificate of compliance from the district.
- In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either (1) compaction mitigation over the entire mitigation area denoted on the plan (excluding exempt areas), or (2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additional detailed testing shall be performed by a trained, licensed professional.

Compaction Testing Methods

- Probing Wire Test (see detail)
- Hand-held Penetrometer Test (see detail)
- Tube Bulk Density Test (licensed professional engineer required)
- Nuclear Density Test (licensed professional engineer required)

Note: Additional testing methods which conform to ASTM standards and specifications, and which produce a dry weight, soil bulk density measurement may be allowed subject to District approval.

Soil compaction testing is not required if/when subsol compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

Procedures for Soil Compaction Mitigation

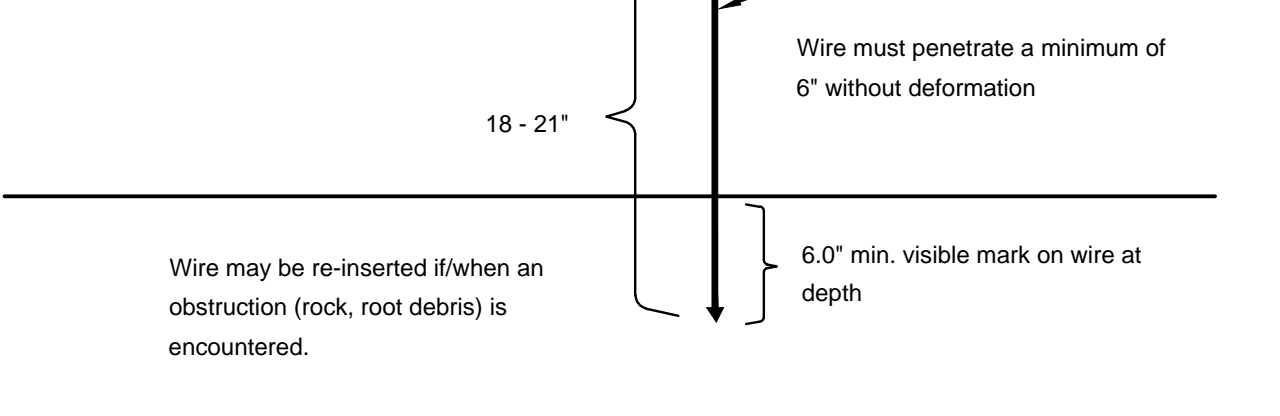
Procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetative cover.

Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a New Jersey Licensed Professional Engineer may be substituted subject to District Approval.

Simplified Testing Methods

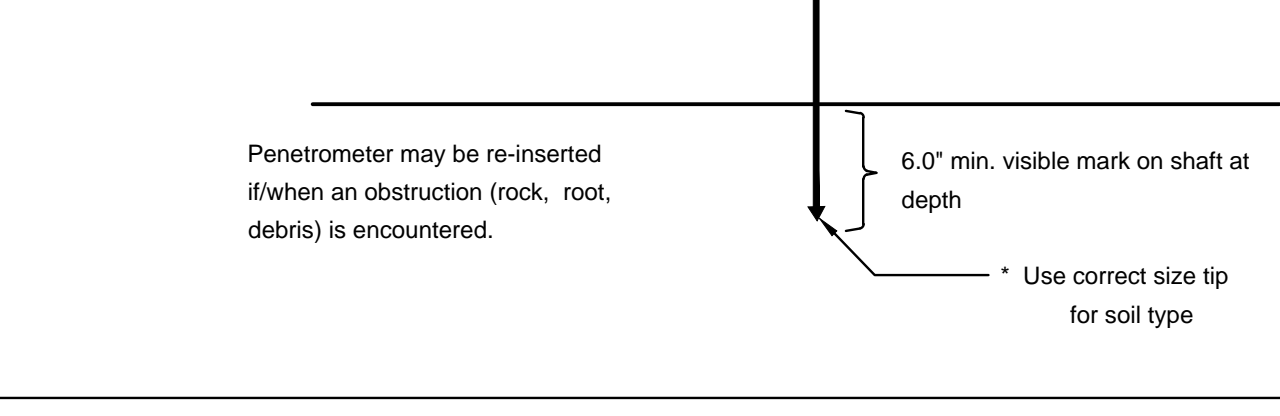
Probing Wire Test- 15.5 ga steel wire (survey flag)

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the wire.

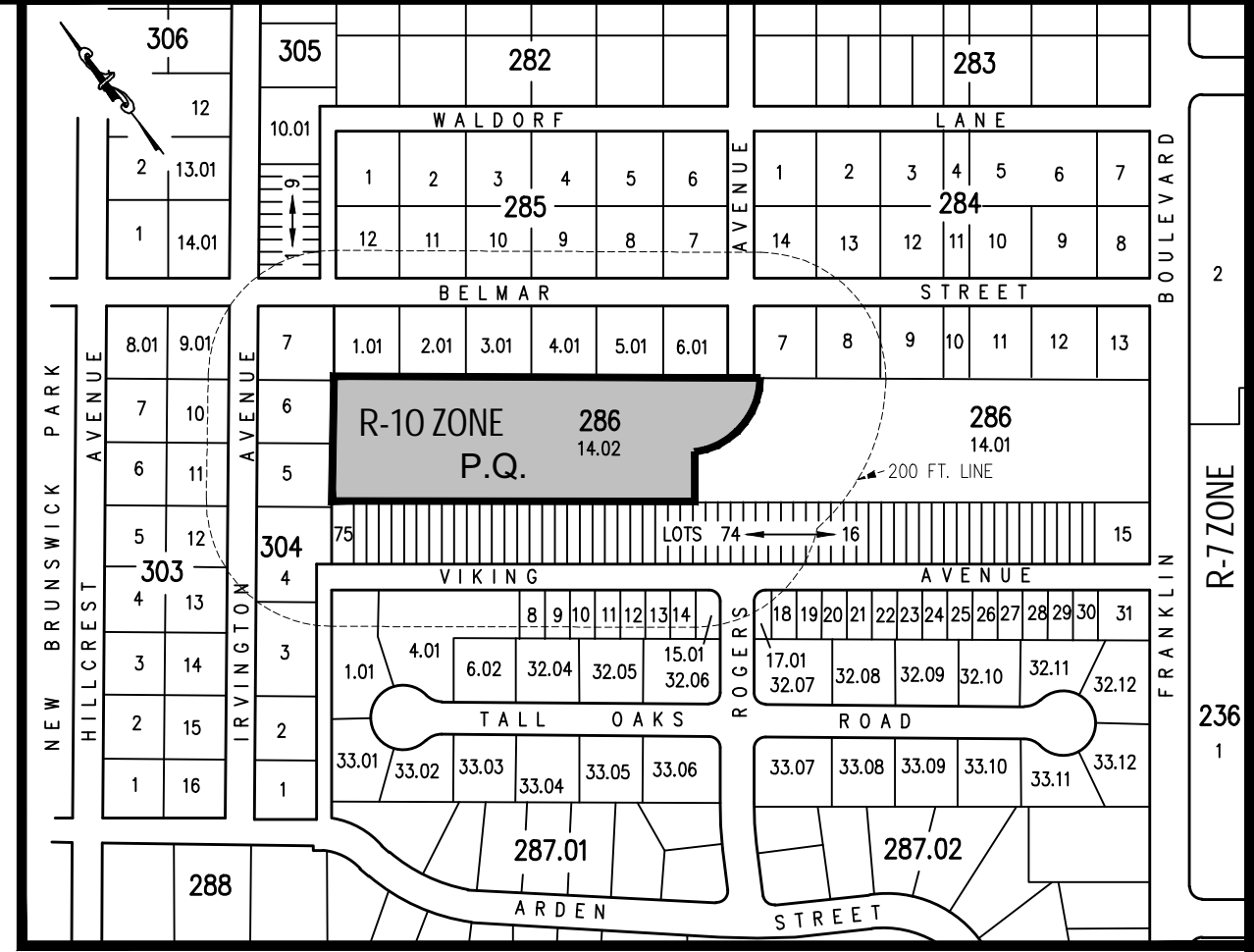
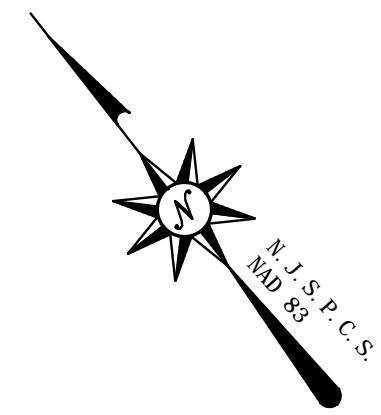


Handheld Soil Penetrometer Test

Note: soil should be moist but not saturated. Do not test when soil is excessively dry or subject to freezing temperatures. Slow, steady downward pressure used to advance the probe. Probe must penetrate at least 6" with less than 300 psi reading on the gage.

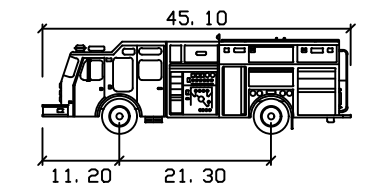
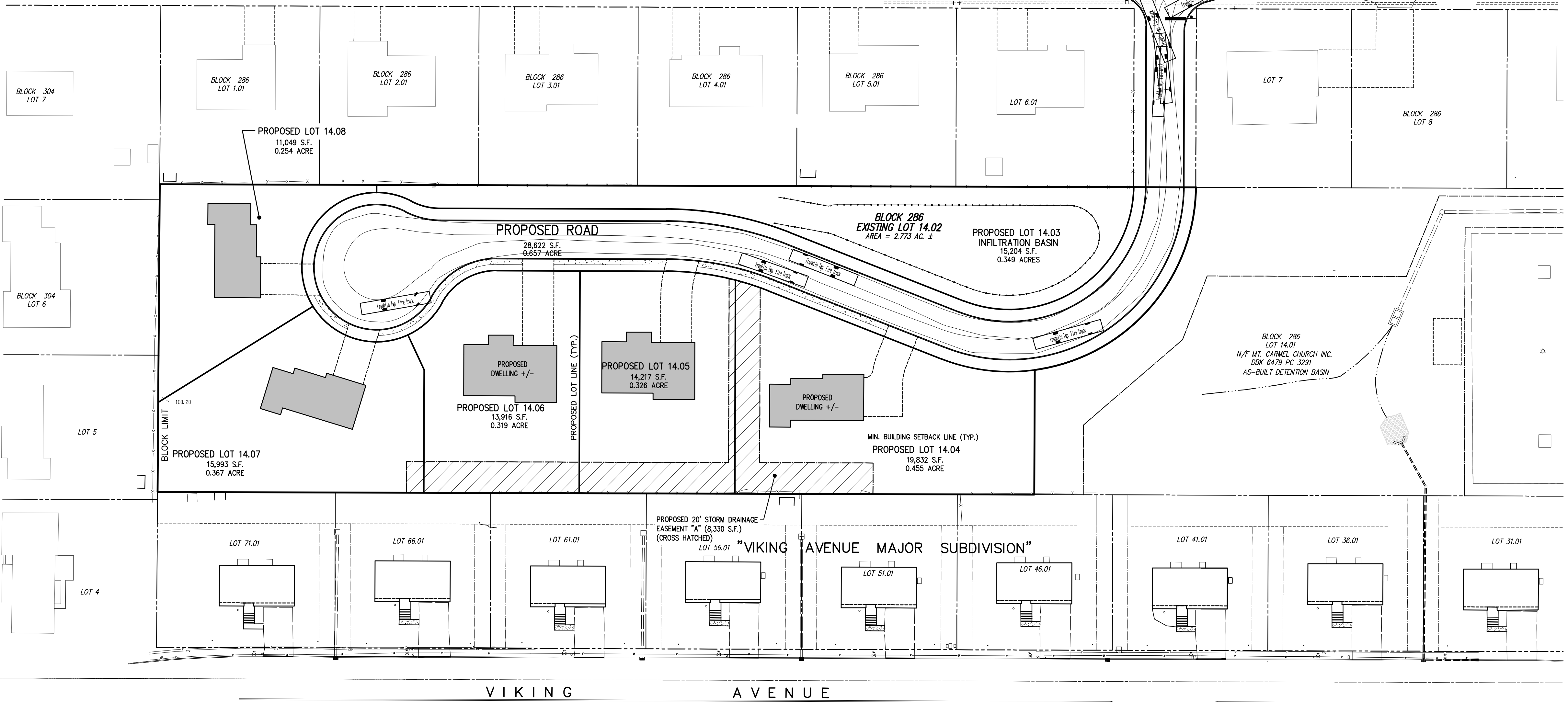
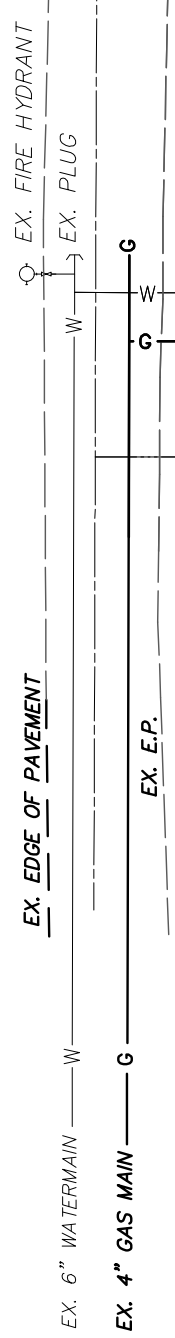


- DUE TO USE OR SETTING, CERTAIN DISTURBED AREAS WILL NOT REQUIRE COMPACTION REMEDIATION INCLUDING, BUT NOT LIMITED TO THE FOLLOWING:
 - WITHIN 20 FEET OF BUILDING FOUNDATIONS WITH BASEMENTS, 12 FEET FROM SLAB OR CRAWL SPACE CONSTRUCTION.
 - WHERE SOILS OR GRAVEL SURFACES WILL BE REQUIRED TO SUPPORT POST-CONSTRUCTION VEHICULAR TRAFFIC LOADS SUCH AS ROADS, PARKING LOTS AND DRIVEWAYS (INCLUDING GRAVEL SURFACES), BICYCLE PATHS OR PEDESTRIAN WALKWAYS (SIDEWALKS ETC.)
 - AIRPORTS, RAILWAYS OR OTHER TRANSPORTATION FACILITIES
 - AREAS REQUIRING INDUSTRY OR GOVERNMENT SPECIFIC SOIL DESIGN, INCLUDING GOLF COURSES, LANDFILLS, WETLAND RESTORATION, SEPTIC DISPOSAL FIELDS, METALINED PONDS, ETC.
 - AREAS GOVERNED OR REGULATED BY OTHER LOCAL, STATE OR FEDERAL REGULATIONS WHICH DICTATE SOIL CONDITIONS
 - BROWNFIELDS (CORROD LINES), URBAN REMEDIATION AREAS, IN-HILL AREAS, RECYCLING YARDS, JUNK YARDS, QUARRIES
 - SLOPES DETERMINED TO BE INAPPROPRIATE FOR SAFE OPERATION OF EQUIPMENT
 - PORTIONS OF A SITE WHERE NO HEAVY EQUIPMENT TRAVEL OR OTHER DISTURBANCE HAS TAKEN PLACE
 - AREAS RECEIVING TEMPORARY VEGETATIVE STABILIZATION IN ACCORDANCE WITH THE STANDARD.
 - WHERE THE AREA AVAILABLE FOR REMEDIATION PRACTICES IS 500 SQUARE FEET OR LESS IN SIZE.
 - LOCATIONS CONTAINING SHALLOW (CLOSE TO THE SURFACE) BEDROCK CONDITIONS.

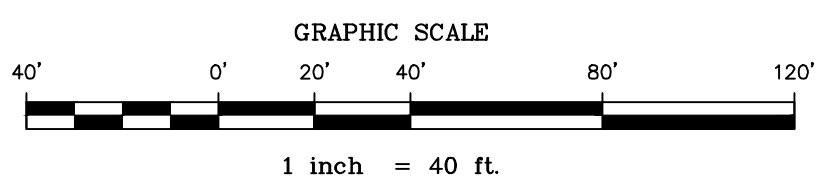
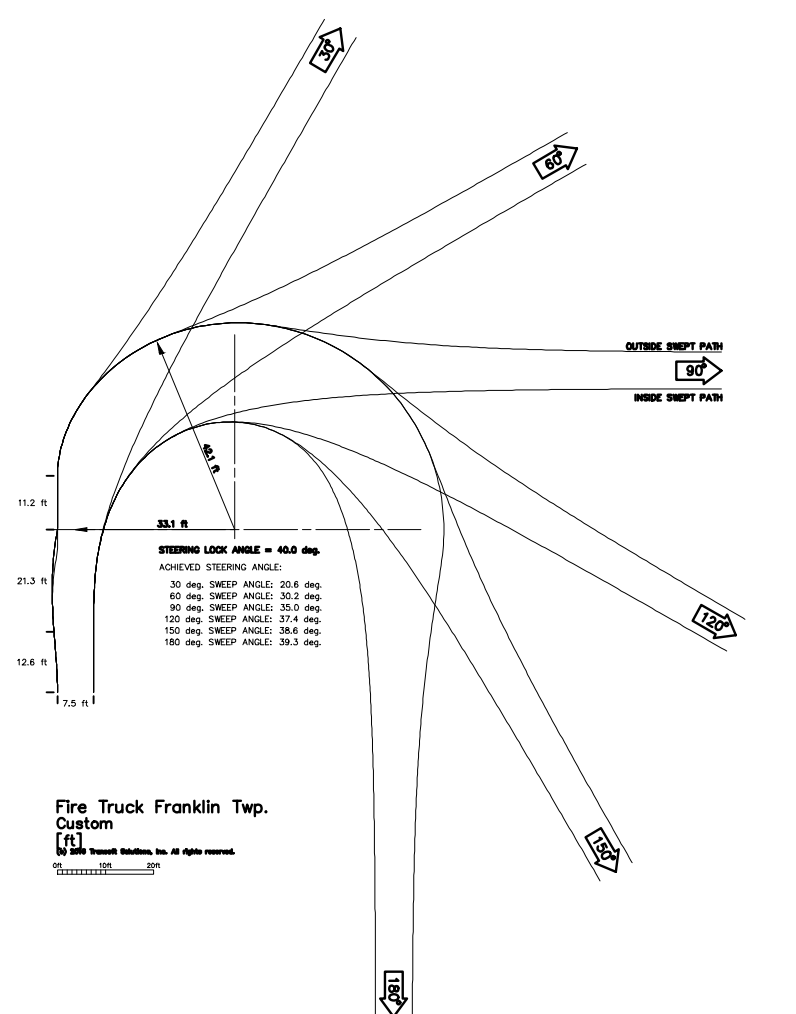


FRANKLIN TOWNSHIP TAX MAP No. 60.03
KEY MAP
SCALE: 1"=300' ±

IRVINGTON AVENUE
40 FT. R.O.W.



Fire Truck Franklin Twp.
Width: 7.50
Track: 7.50
Lock to Lock Time: 6.0
Steering Angle: 40.0



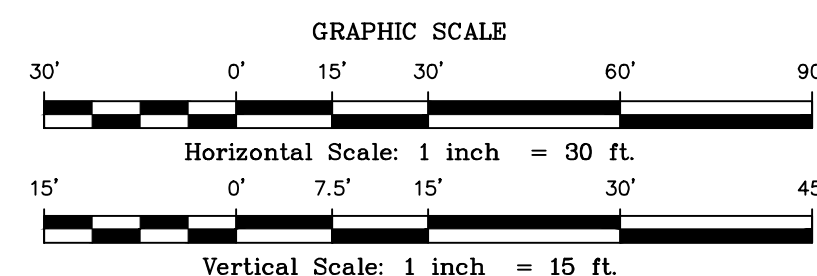
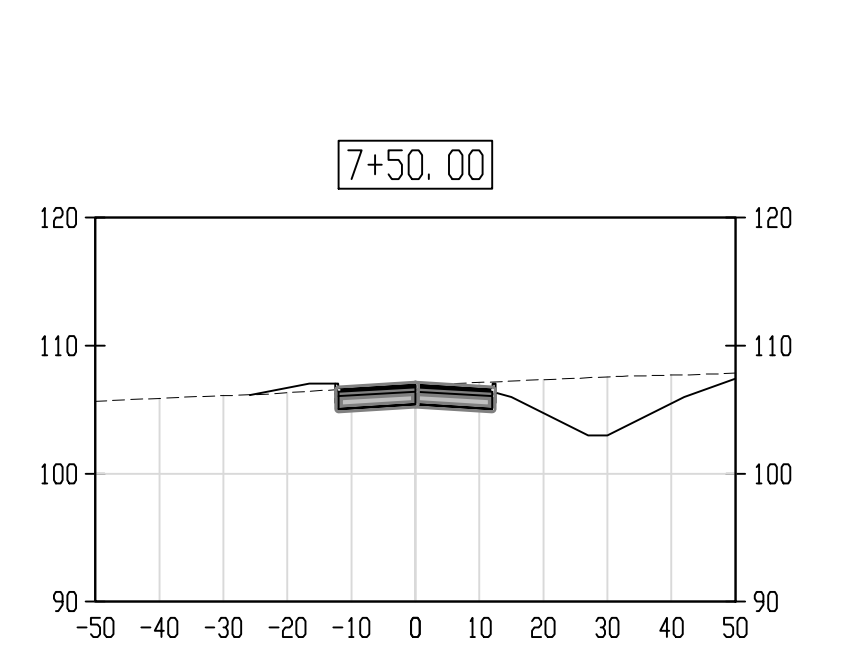
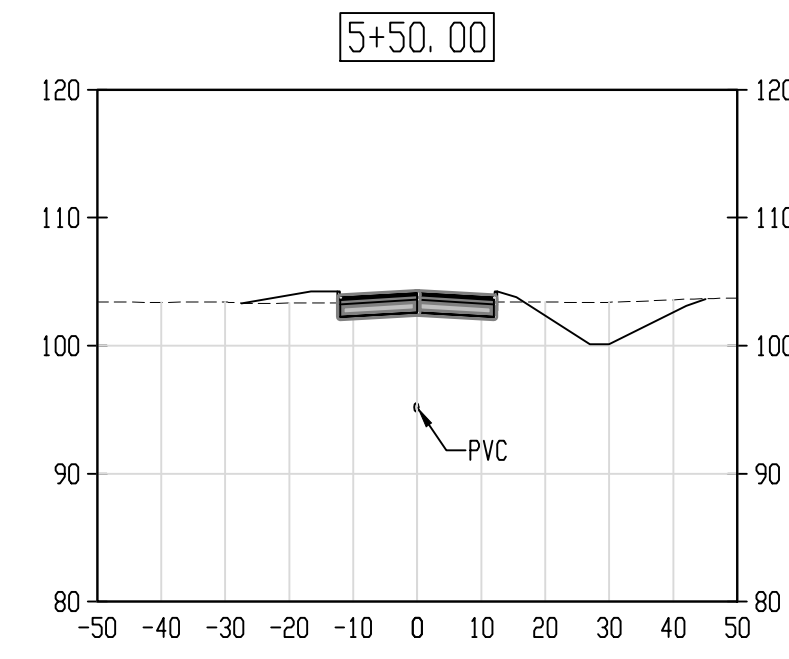
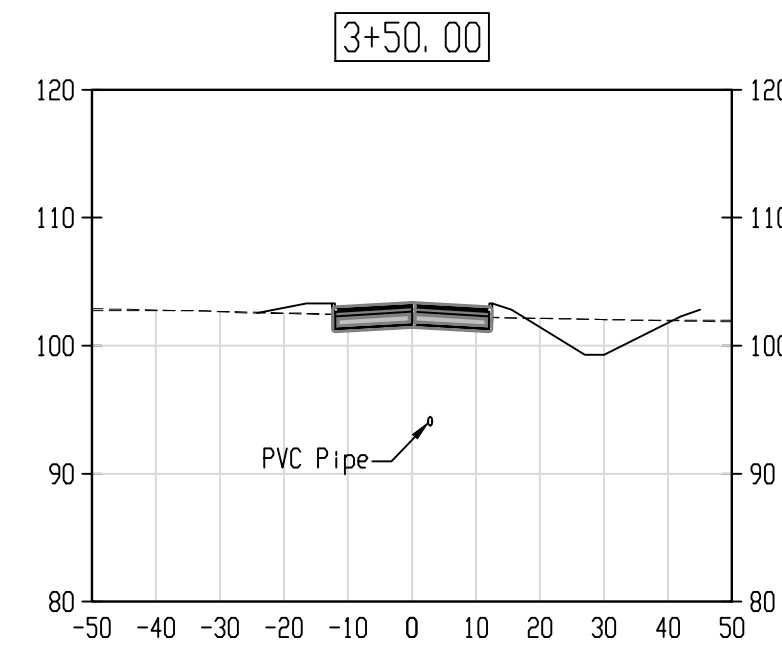
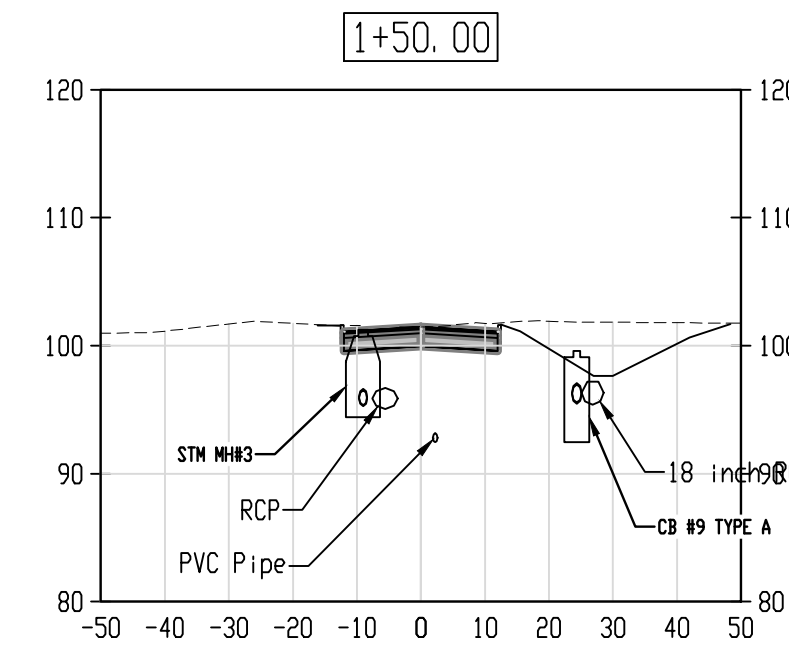
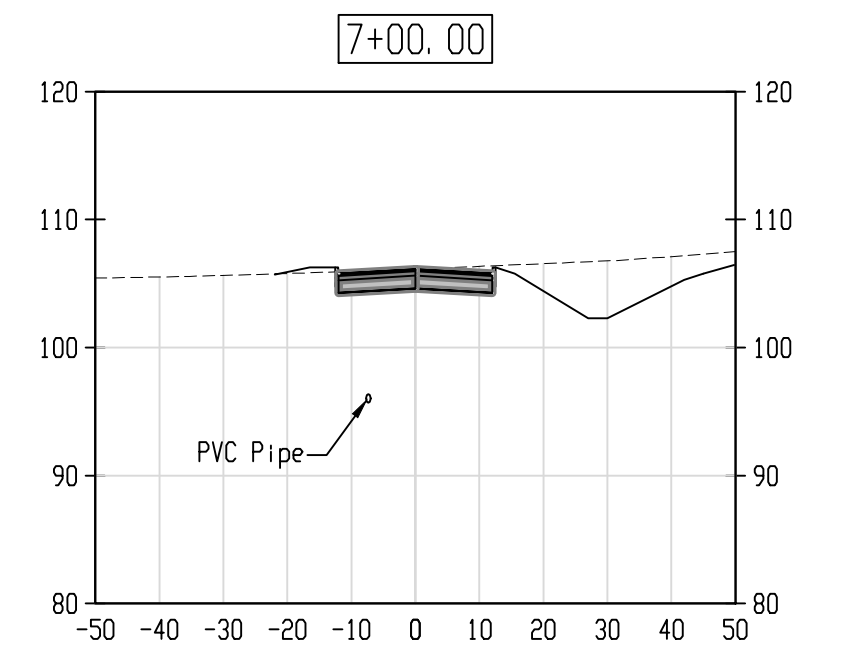
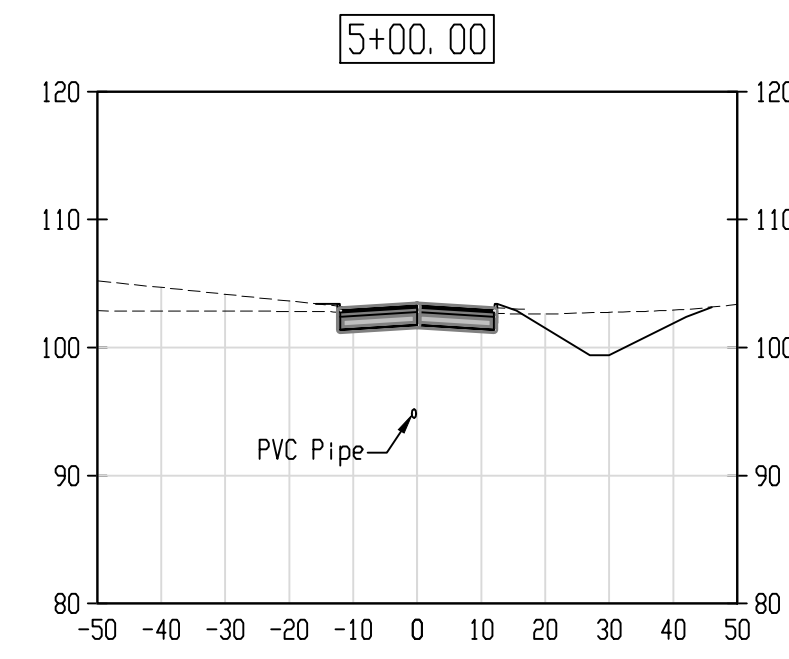
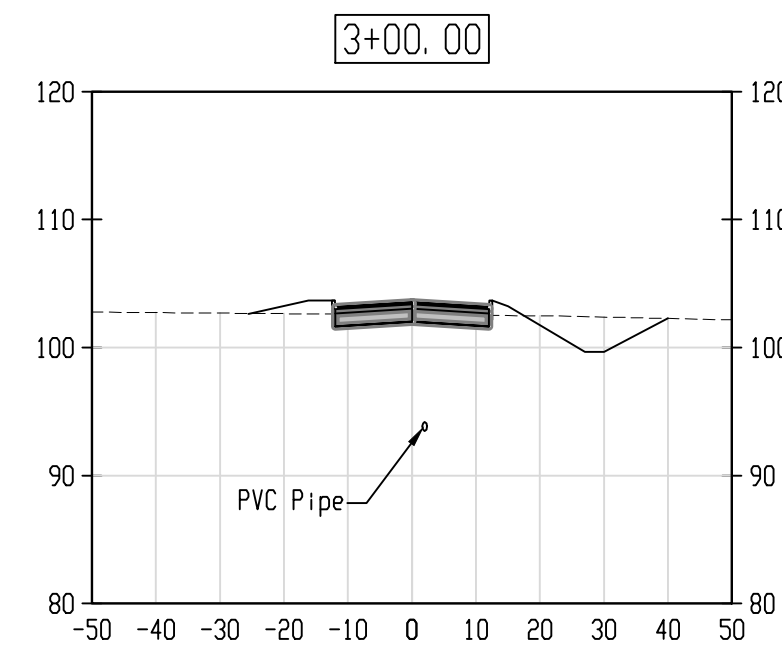
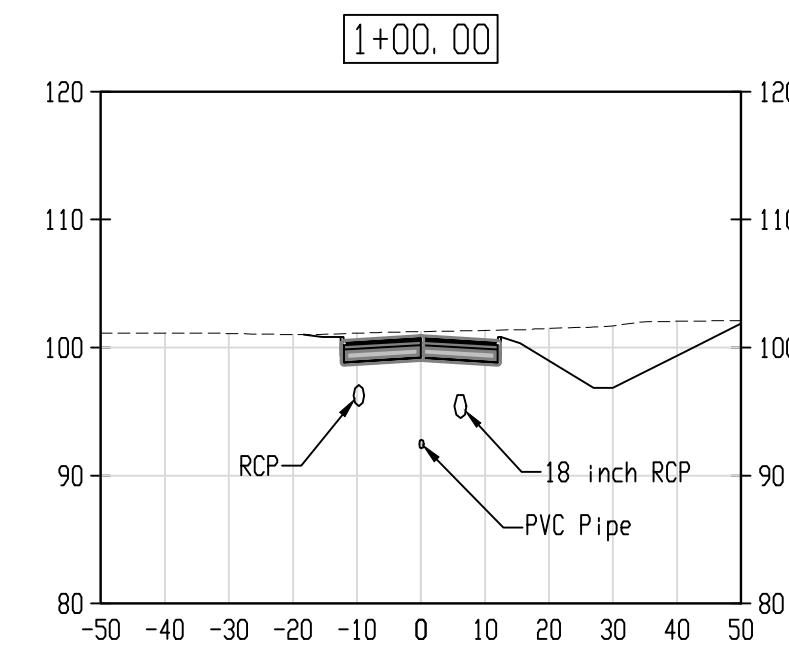
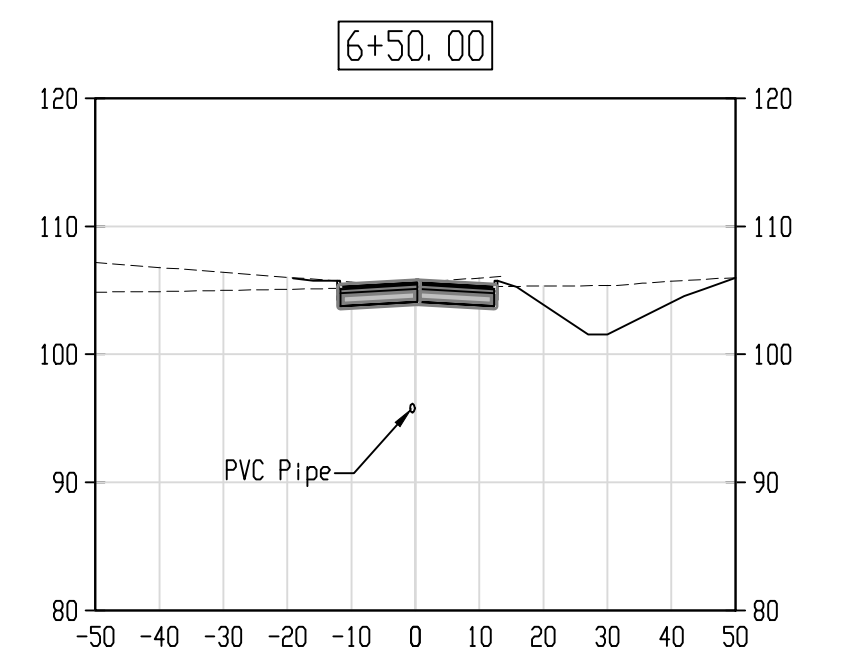
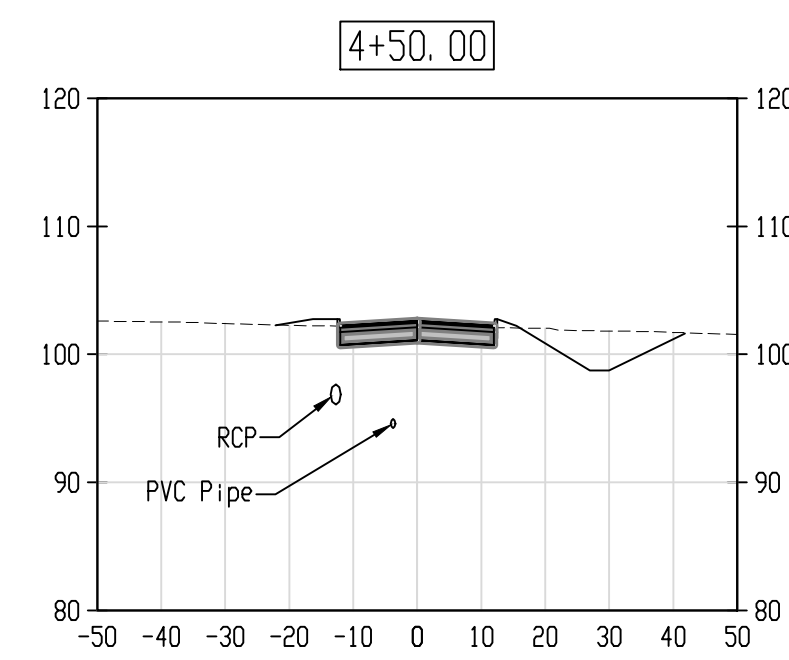
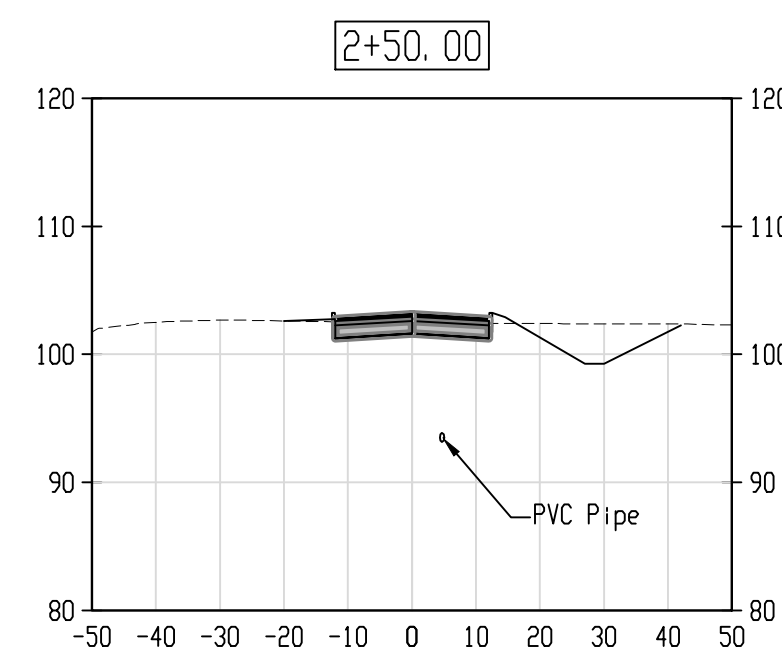
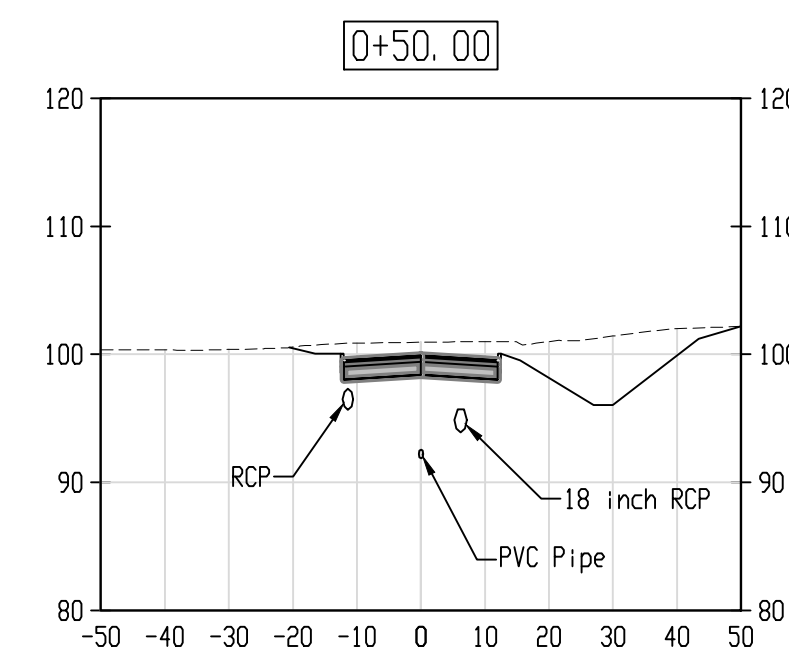
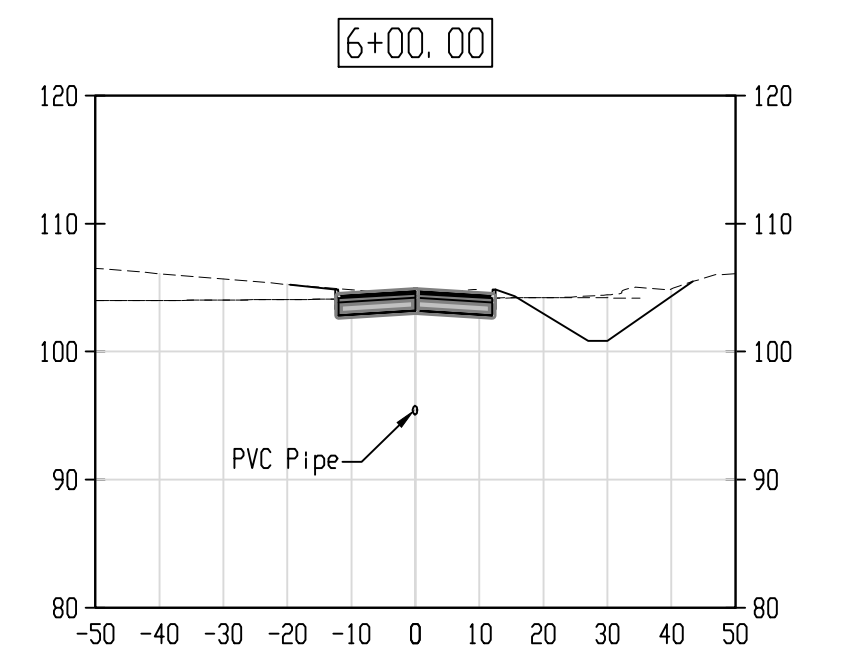
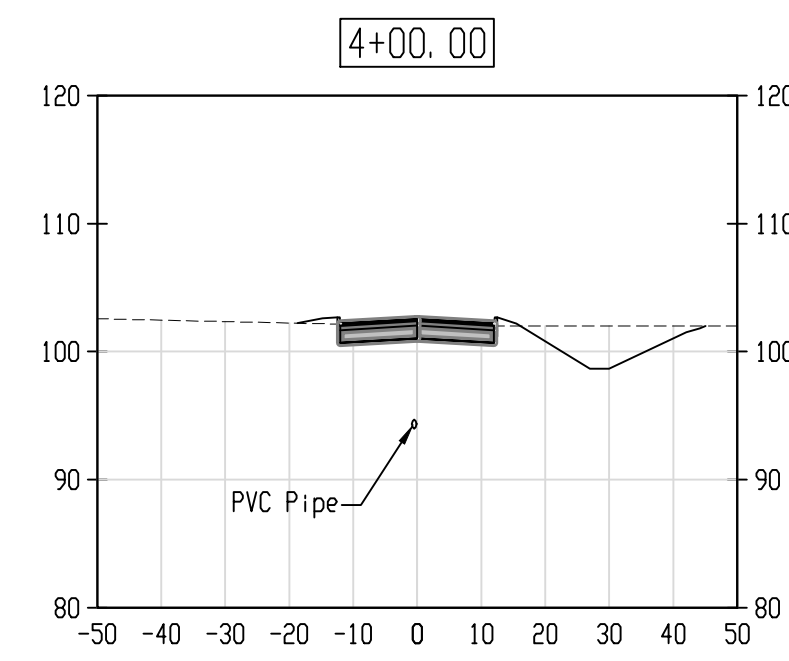
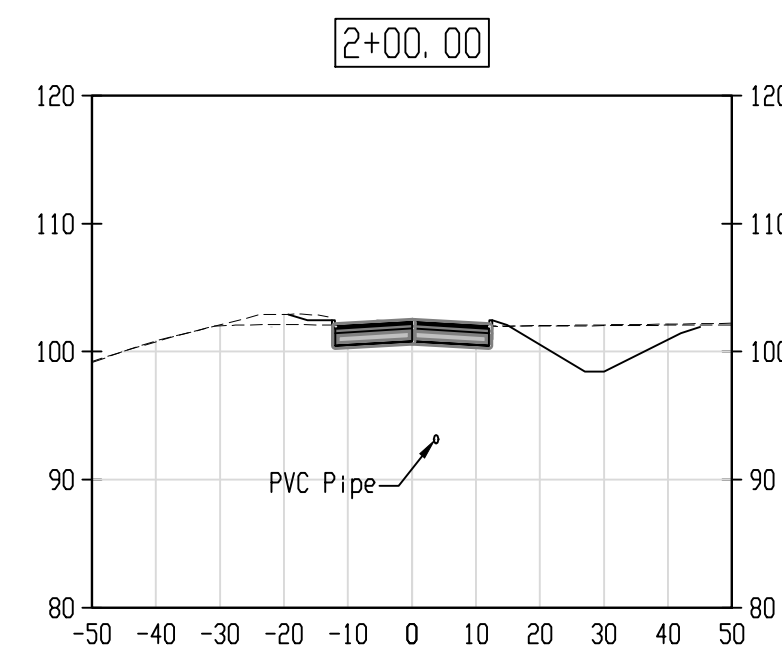
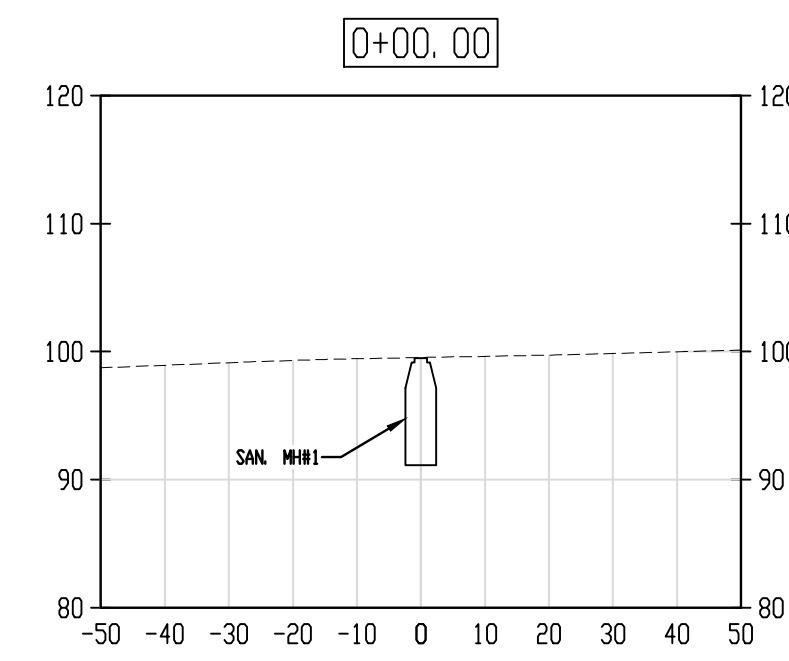
DATE:	DECEMBER 15, 2017
SCALE:	1" = 40'
DESIGNED BY:	M.K.F.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
PER TOWNSHIP	M.K.F. 3/24/22
REVISIONS	AUTH. DATE JOB No. 15-09-FS

BY: *Michael K. Ford*
Michael K. Ford
New Jersey Professional Engineer
No. 34722



FIRE TRUCK TURNING TEMPLATE
FOR
LOT 14.02 IN BLOCK 286
SITUATED IN
FRANKLIN TOWNSHIP,
SOMERSET COUNTY, NEW JERSEY

F:\Jebf\16\15095\ENR\15095-SITE_02-24-20.dwg



DATE:	MARCH 24, 2022
SCALE:	AS SHOWN
DESIGNED BY:	M.K.F./M.R.
DRAWN BY:	A.B.
CHECKED BY:	M.K.F.
REVISIONS	AUTH. DATE JOB No. 15-09-FS

BY: *Michael K. Ford*
 Michael K. Ford
 New Jersey Professional Engineer
 No. 34722

Van Cleef
 ENGINEERING ASSOCIATES

Consulting Civil Engineering
 Environmental Engineering
 Municipal Engineering
 Land Surveying
 Professional Planning
 Landscape Architecture

32 BROWER LANE, PO BOX 5877, HILLSBOROUGH, NJ 08844
 EMAIL: VCC@VCEA.ORG WEB: WWW.VCEA.ORG
 PHONE: (908) 359-8591 FAX: (908) 359-1560

OFFICES THROUGHOUT
 NJ, EASTERN PA AND DE

NJ LLC CERT. No. 24GA2812300

PROPOSED ROAD CROSS SECTION
 FOR
 LOT 14.02 IN BLOCK 286
 SITUATED IN
 FRANKLIN TOWNSHIP,
 SOMERSET COUNTY, NEW JERSEY